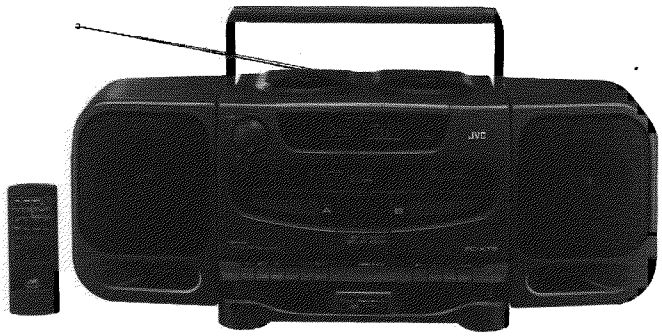
JVC

SERVICE MANUAL

TWIN-CD PORTABLE SYSTEM

PC-XT5 B/E



COMPACT disc DIGITAL AUDIO

Area suffix

B	..... U.K.
E	..... Continental Europe

FEATURES

1. **Portable system incorporating a multi-function Twin-CD player.**
   - Twin-CD player with programmable play of up to 20 tunes/repeat play/random play/intro play functions.
   - 8-cm (3-3/16") "CD singles" capability.
2. **MW/LW/FM-stereo PLL synthesizer tuner.**
   - 20-station preset tuning (FM-10, MW-5, LW-5).
   - Seek /Manual tuning.
3. **The CD and tuner functions can be operated from the remote control unit.**
4. **Synchro-record start for CD recording convenience.**
5. **Double-cassette mechanism (Deck A for recording and playback, Deck B for playback).**
   - Dolby *B Noise Reduction System.
   - Metal and CrO_2 tape can be played back, for superior tone quality.
   - Synchro start dubbing function (normal/high-speed dubbing).
   - Relay playback (from Deck B to Deck A).
   - Full auto-stop mechanism.
6. **Hyper-Bass sound system with 3D super woofer.**

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol ⧫⧫ are trademarks of Dolby Laboratories Licensing Corporation.

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No. 1843
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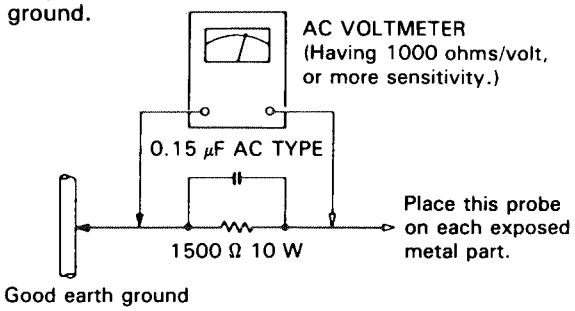
■ Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer or responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by (⚠) on the schematic diagram and Parts List in Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List in Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.
   When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.).
     This corresponds to 0.5 mA AC (r.m.s.).

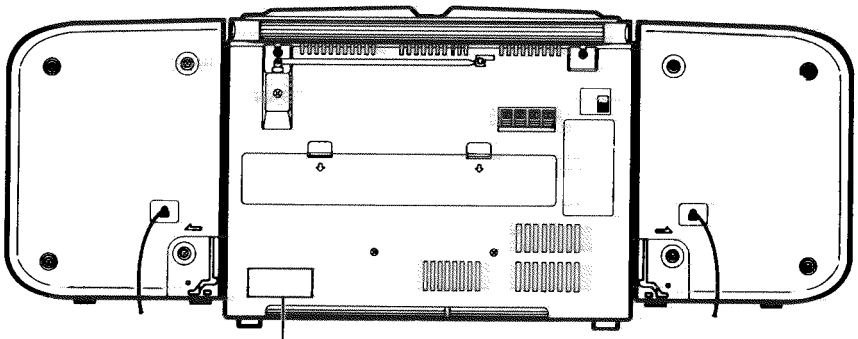

AC VOLTMETER
(Having 1000 ohms/volt, or more sensitivity.)
0.15 μF AC TYPE
1500 Ω 10 W
Place this probe on each exposed metal part.
Good earth ground

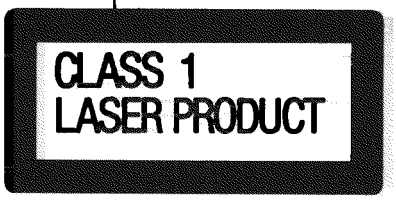
Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are mainteined.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

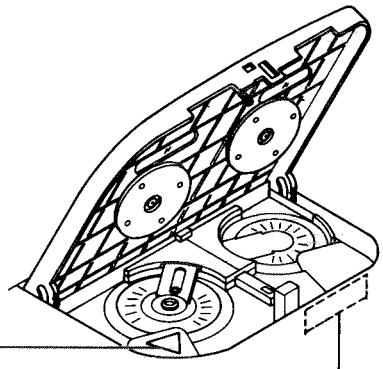
IMPORTANT FOR LASER PRODUCTS

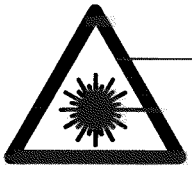
1. CLASS 1 LASER PRODUCT
2. DANGER: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. CAUTION: Do not open the rear cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. CAUTION: The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the disc holder is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. CAUTION: Use of controls of adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.





Obs:
Apparaten innehåller laserkomponent av högre laserklass än klass 1.



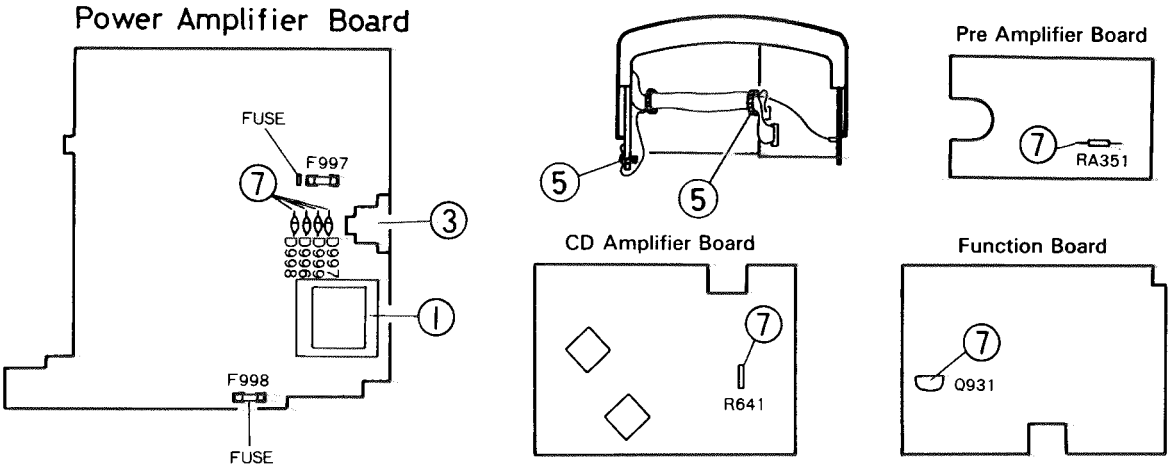


VAROITUS! Laite sisältää laserdiodin, joka lähettää näkymätätöntä silmille vaarallista lasersäteilya.

ADVARSEL-Der vil udstråles osynlig laserbestråling når apparatet åbnes og aflåsningsmekanismen frigøres UNDGÅ AT BLIVE UDSET FOR LASERBESTRÅLING
DANGER-Invisible laser radiation when open and interlock defeated AVOID DIRECT EXPOSURE TO BEAM

■ Important Management Points Regarding Safety

(Items Demanding Special Safety Precautions)



① The power transformer must be checked by the following markings as well as managed in the fastening torque of the screws. Also confirm parts number according to the parts list.
B/E/G : VTP57P2-12C (Marking)

② Power cord: Make sure of the following markings and inspect exterior scratch and damage. (Accessories Parts)

	Power cord	Connector and Attachment plug
E/G	◁ VDE ▷	Ⓢ and KP-15 or KS-15F

③ Confirm the AC socket marking:
B/E/G : HSC1466

⑤ Wires and so forth must be securely clamped or fixed as illustrated on the left (at two points) to keep them from power active parts, mobile parts, heating units and sharpedged parts.

⑦ Since the following parts are heat generating ones, they must not contact with electrolytic capacitors, wires, etc.
- Parts in parenthesis ( ) are inflammables. Make sure of their lift-up condition for this purpose.
- Parts in box ▭ are out of JVC control.

(D996) (D997) (D998) (D999) (R641) (Q931) RA351

Fuse

Confirm Ⓢ and ♆ mark on F997 and F998 and they are tightly retained by fuse holders.

E	F998	Ⓢ , ♆ 5A/125V
E	F997	Ⓢ , ♆ 600 mA/250 V

■ Specifications

Compact disc player section

Type	: Compact disc player
Signal detection system	: Non-contact optical pickup (semiconductor laser)
Number of channels	: 2 channels (stereo)
Frequency response	: 20 Hz – 20,000 Hz
Signal-to-noise ratio	: 76 dB
Wow & flutter	: Less than measurable limit

Radio section

Frequency ranges	: FM 87.5 – 108 MHz MW 522 – 1,629 kHz LW 144 – 288 kHz
Antennas	: Telescopic antenna for FM Ferrite core antenna for MW & LW

Tape deck section

Track system	: 4-track 2-channel stereo
Motor	: Electronic governor DC motor for capstan
Heads	: Deck A; Hard permalloy head (for recording/ playback), Permalloy head for erasure Deck B; Hard permalloy head for playback
Frequency response	: 40 –14,000 Hz (with metal tape/normal speed)
Wow & flutter	: 0.15 % (WRMS)
Fast wind time	: Approx. 120 sec. (C-60 cassette)

General

3D system	: ASW (Acoustic Super Woofer
Power output	: 16W (8 W + 8 W) at 3 Ω and 20 W for 3D at 4 Ω (Max.) 10W (5W+5W) at 3 Ω and16 W for 3D at 4 Ω (10 % THD)
S.E.A. characteristics	: S.E.A. center frequencies: 100 Hz /1 kHz /10 kHz S.E.A. control range : ±10 dB
Output terminals	: Speaker x 2 (matching impedance 3–16 Ω) PHONES x 1 (Output level: 0–15 mW/32 Ω Matching impedance: 16 Ω-1k Ω)
Power supply	: AC 240 V, 50/60 Hz (PC-XT5B) AC 230V, 50/60 Hz (PC-XT5E/G) DC 12 V (8 "R20" batteries) (PC-XT5E) Ext. DC IN 12V (car battery via market available car adapter)
Power consumption	: 43 W (with POWER SW ON) 3.2 W (with POWER SW STANDBY)
Dimensions	: 695(W) x 271(H) x 275(D) mm (27-3/8" x 10-11/16" x 10-7/8") including knobs
Weight	: Approx. 9.1kg (20.1 lbs) (without batteries) Approx. 9.9 kg (21.9 lbs) (with batteries)
Accessories provided	: AC power cord Remote control unit (RM-RX1005) Battery "R03" x 2 (for the remote control)

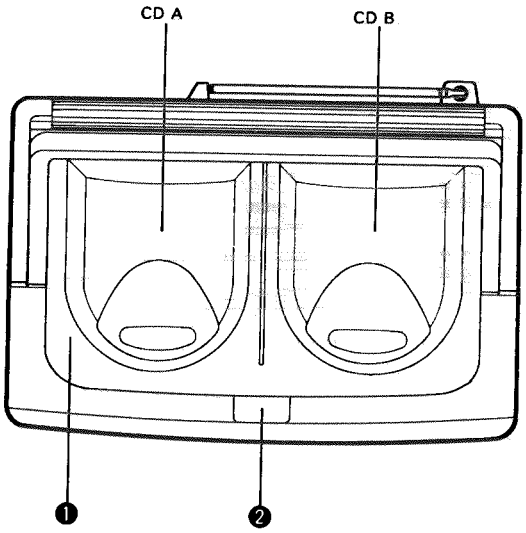
Speaker Section (each unit)

Speakers	: 10 cm (3-15/16") x 1
Impedance	: 3 Ω
Dimensions	: 177(W) x 242(H) x 208(D) mm (7" x 9-9/16" x 8-1/4")
Weight	: Approx. 1.3 kg (2.9 lbs)

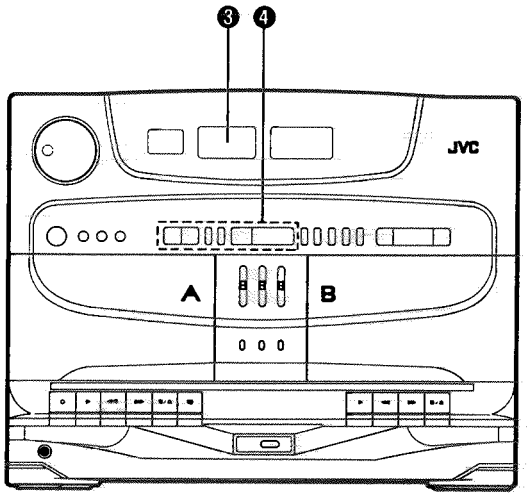
Design and specifications are subject to change without notice.

■ Instructions (Extraction)

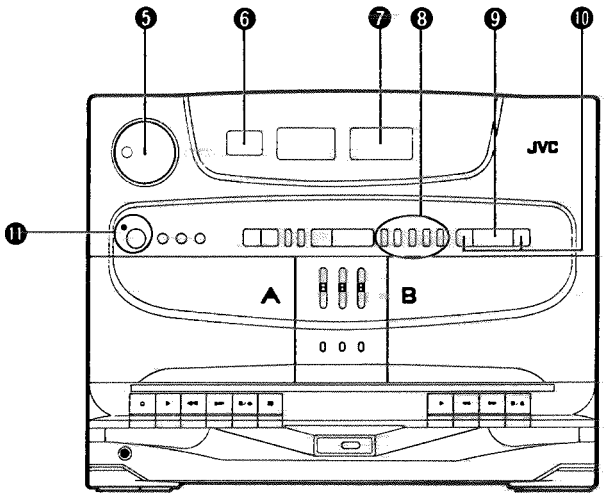
- **Top panel**



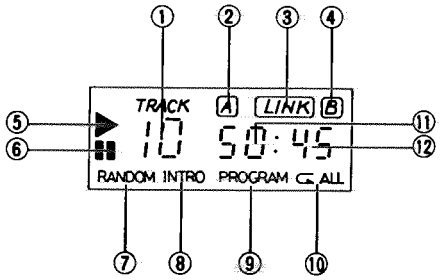
- **Panel superior**



- **Panneau supérieur**

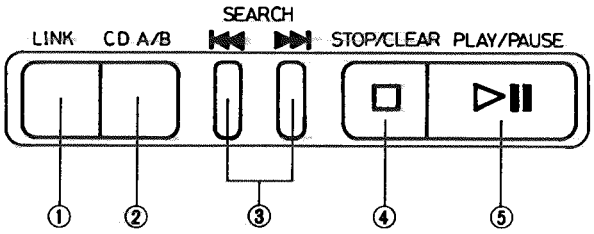


❶ **Disc holder**
❷ **Disc holder open button (PUSH OPEN) (⏏)**
❸ **Display window (CD player section)**



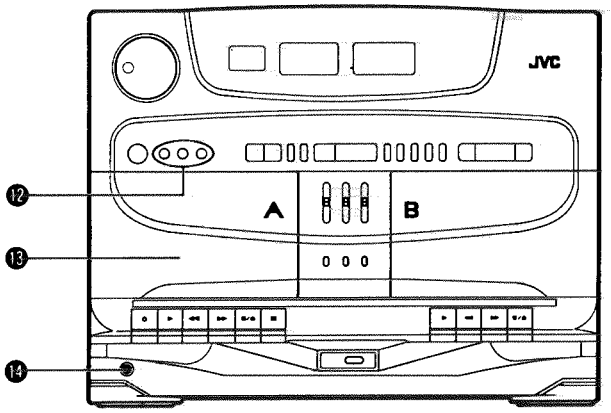
① Track (tune) number display
② CD A indicator
③ LINK indicator
④ CD B indicator
⑤ Play indicator (▶)
⑥ Pause indicator (❚❚)
⑦ RANDOM playback indicator
⑧ INTRO scan indicator
⑨ Program mode indicator (PROGRAM)
⑩ Repeat playback indicator (⊆ ALL)
⑪ Program order number/Time (minute) display
⑫ Time (second) display

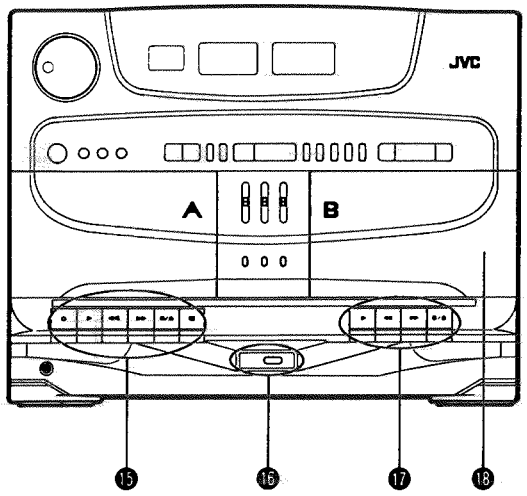
❹ **CD operation buttons**

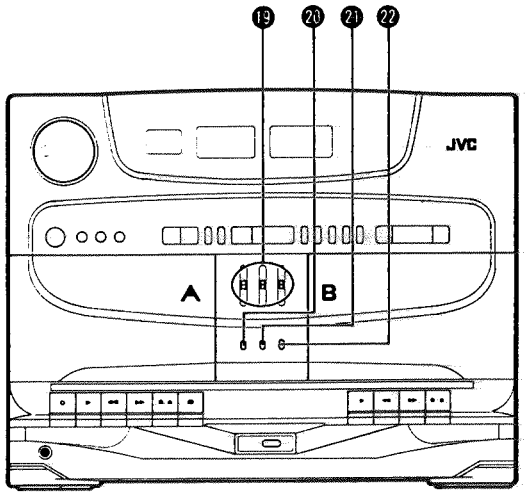


① LINK button
② CD A/B select button
③ SEARCH button (|◀◀/▶▶|) button
④ STOP/CLEAR (□) button
⑤ PLAY/PAUSE (▷ ❚❚) button

❺ **VOLUME control**
❻ **REMOTE SENSOR section**
❼ **Display window**
(Tuner section)
BAND indicator (FM1-FM2-FM3-AM)
Radio frequency display
PRESET STATION indicator
STEREO (FM stereo) indicator
(Tape deck section)
TAPE indicator
❽ **Preset station buttons**
❾ **BAND button**
❿ **TUNING control**
DOWN frequency
UP frequency
⓫ **POWER switch and indicator**







⑫ **FUNCTION switch**
CD
Set to this position when listening to or recording from a CD.
TAPE
Set to this position to listen to a cassette or perform dubbing a tape.
TUNER
Set to this position when listening to or recording from the radio.

⑬ **Cassette holder (Deck A)**

⑭ **PHONES jack (3.5 mm dia. stereo mini)**
Connect headphones (impedance 16 Ω—1 kΩ) to this jack. The speakers are automatically switched off with the headphones connected.

⑮ **Cassette operation buttons (Deck A)**
O REC:
Press this button with the ► PLAY button to start recording.
► PLAY:
Press to play the tape.
◄◄ REW:
Press to rewind the tape rapidly.
►► FF:
Press to wind the tape forward rapidly.
■ /⏏ STOP/EJECT:
Press to stop the tape. Pressing this button after the tape stops opens the cassette holder.
❚❚ PAUSE:
Press to stop the tape temporarily. Press again to release the pause mode.

⑯ **HYPER-BASS switch and indicator**
▬ ON:
Set to this position to listen to the Hyper-Bass sound.
▬ OFF:
Set to this position when Hyper-Bass sound is not required.
• This function does not work while headphones are being used.

⑰ **Cassette operation buttons (Deck B)**
► PLAY:
Press to play the tape.
◄◄ REW:
Press to rewind the tape rapidly.
►► FF:
Press to wind the tape forward rapidly.
■ /⏏ STOP/EJECT:
Press to stop the tape. Pressing this button after the tape stops opens the cassette holder.

⑱ **Cassette holder (Deck B)**

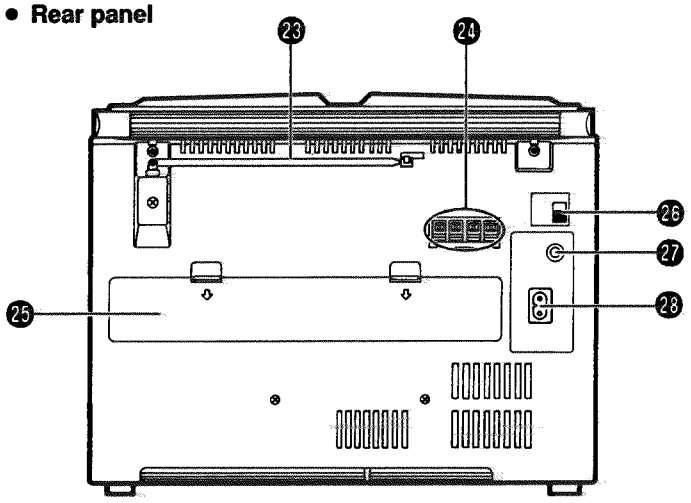
⑲ **3-BAND GRAPHIC EQUALIZER controls.**

⑳ **DUBBING SPEED switch**
▬ HIGH:
Set to this position when dubbing at high-speed.
▬ NORMAL:
Set to this position when dubbing at normal-speed.

㉑ **DOLBY NR switch**
Set to ON (▬) when recording or playing back tapes using the noise reduction system.

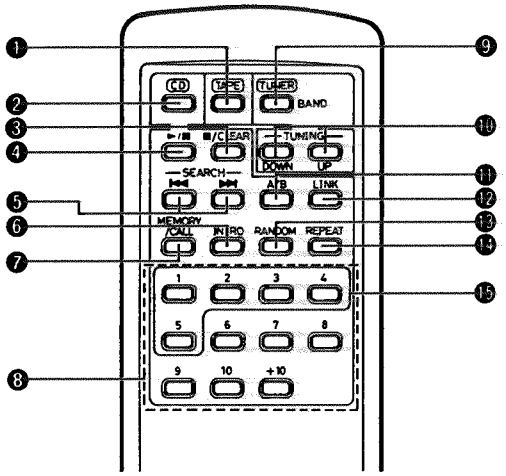
㉒ **TAPE (FOR PLAYBACK)/FM MODE switch**
TAPE (FOR PLAYBACK) switch:
Set this switch according to the type of tape to be used.
▬ METAL-CrO_2: (playback only)
Set to this position to listen to a metal (type IV) or chrome (type II) tape.
▬ NORMAL:
Set to this position to listen to a normal (type I) tape.
FM MODE switch:
▬ MONO:
Set to this position when FM stereo reception is obscured by noise.
▬ STEREO:
Set to this position when listening to or recording an FM stereo broadcast.

- **Rear panel**



㉖ **Telescopic antenna**
㉔ **SPEAKER terminals**
Connect the provided speakers to these terminals
㉕ **Battery compartment cover**
㉕ **BEAT CUT switch**
㉗ **DC IN 12 V jack (⟐-Ⓒ-⟐) (PC-XT5E)**
㉓ **AC IN (AC input) jack**

REMOTE CONTROL UNIT

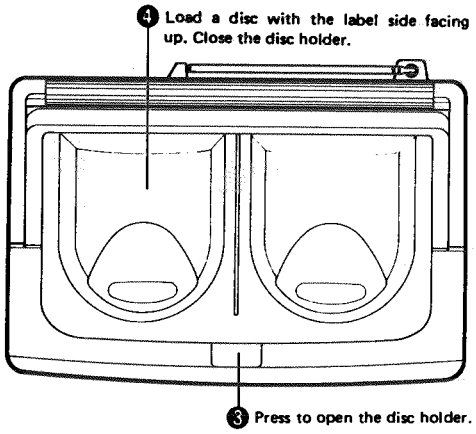


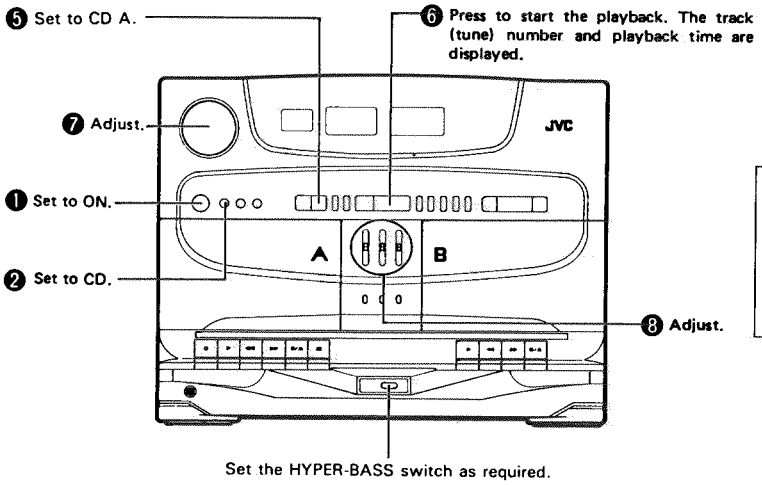
❶ **TAPE mode button**
❷ **CD mode button**
❸ **Stop/clear button (■ /CLEAR)**
❹ **Play/pause button (▶ /■)**
❺ **SEARCH buttons (|◀◀ , ▶▶|)**
❻ **INTRO scan button**
❼ **MEMORY/CALL button**
❽ **Track (tune) number buttons (No. 1 – No. 10, +10)**
❾ **TUNER mode/BAND button**
❿ **TUNING control buttons**
DOWN frequency
UP frequency
⓫ **CD A/B select button**
⓬ **LINK button**
⓭ **RANDOM button**
⓮ **REPEAT button**
⓯ **Preset station buttons (No. 1 – No. 5)**

PLAYING COMPACT DISCS

Entire tune playback
(The example shows CD A.)

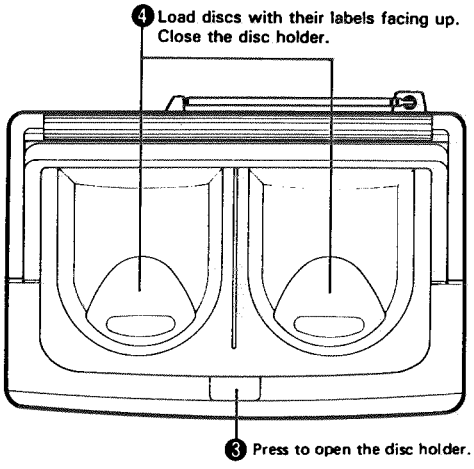
Operate in order shown

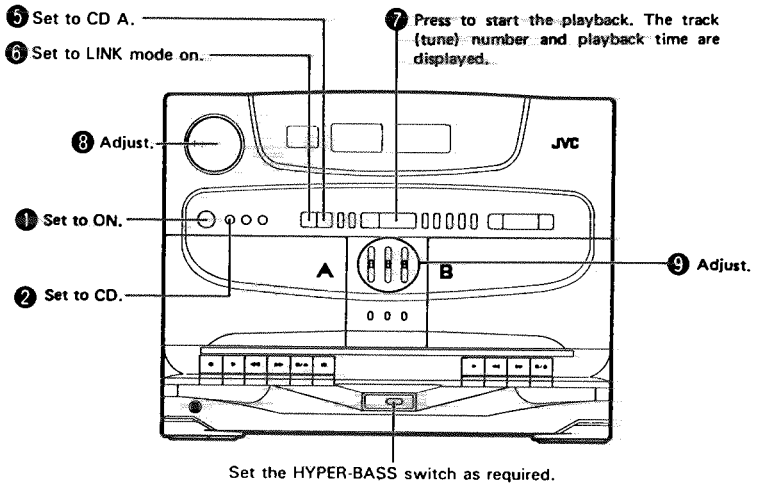



5 Set to CD A.
6 Press to start the playback. The track (tune) number and playback time are displayed.
7 Adjust.
1 Set to ON.
2 Set to CD.
8 Adjust.
JVC
A
B
Set the HYPER-BASS switch as required.

- To play CD B, load a disc into CD B and press the CD A/B select button to set to the CD B play mode and repeat steps ❻ – ❽ above.

To play both CD A and CD B ... Two discs can be played one after the other.
(The example shown CD A first, then CD B.)




5 Set to CD A.
6 Set to LINK mode on.
7 Press to start the playback. The track (tune) number and playback time are displayed.
8 Adjust.
1 Set to ON.
2 Set to CD.
9 Adjust.
JVC
A
B
Set the HYPER-BASS switch as required.

- When playing CD B first, set to the CD B play mode using the CD A/B select button and repeat steps ❻ – ❾ above.

Notes:
1. To switch to the other during CD operation, press the □ STOP/CLEAR button and then select the other disc using the CD A/B select button.
2. After the two CDs have been played, the Twin-CD player stops automatically.

LINK mode
Use to play CD A and CD B, one after the other. LINK is displayed during this mode.
This mode is also activated to cover CDs A and B during Skip play, Programmed playback, Intro-scan, Repeat playback, Random playback.

To stop playback

- **To stop in the middle of a disc**
  During playback, press the □ STOP/CLEAR button to stop playback. The total number of track (tune) and total playback time are displayed.

- **To stop a disc temporarily**
  Press the ▷/❚❚ PLAY/PAUSE button to stop a disc temporarily. When pressed again, playback resumes from the point where pause was engaged.

Caution:
When changing discs, press the □ STOP/CLEAR button; check that the disc has stopped rotating completely before unloading it.

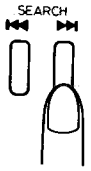
Notes:
- The following indication may be shown when a disc is dirty or scratched, or when the disc is loaded upside down. In such a case, check the disc and insert again and clean or change the disc.

- **Do not use the unit at excessive high or cold temperatures. The recommended temperature range is 5°C (41°F) to 35°C (95°F).**
- After playback, unload the disc and close the disc holder.
- If mistracking occurs during playback, lower the volume.
- Mistracking may occur if the unit is given a strong impact or is used in a place which is subject to vibrations (i.e. in a car travelling on a rough road).

Skip playback

- During playback, when skipping to the beginning of the next tune or the tune being played back or the previous tune, the beginning of the tune is easily located and the playback starts from there.

To listen to the next tune . . .
Press the ▶▶| button once to skip to the beginning of the next tune.



To listen to the previous tune . . .
Press the |◀◀ button to skip to the beginning of the tune being played back and press again to skip to the previous tune.

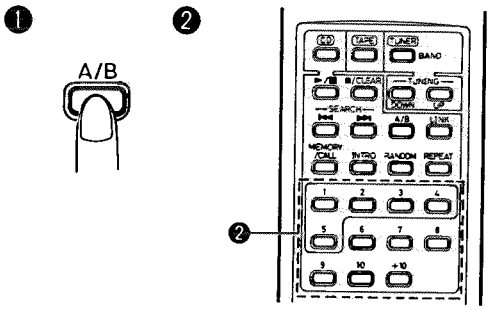
Search playback (to locate the required position on the disc)

- The required position can be located using fast-forward or reverse search during playback.

- Hold down the button and the search playback starts slowly and then gradually increases speed.
- Since a small sound (about one quarter of playback level) can be audible in both modes, release the button when the required position is located while monitoring the sound.

Direct access playback (using the remote control)

- When there are no more programmed tunes, pressing any of the track number buttons will start play from the beginning of the designated tune directly, without having to press the ▶ / ■■ button.



❶ Select the CD A or CD B with the CD A/B select button.
❷ Designate the required tune using the track number buttons.

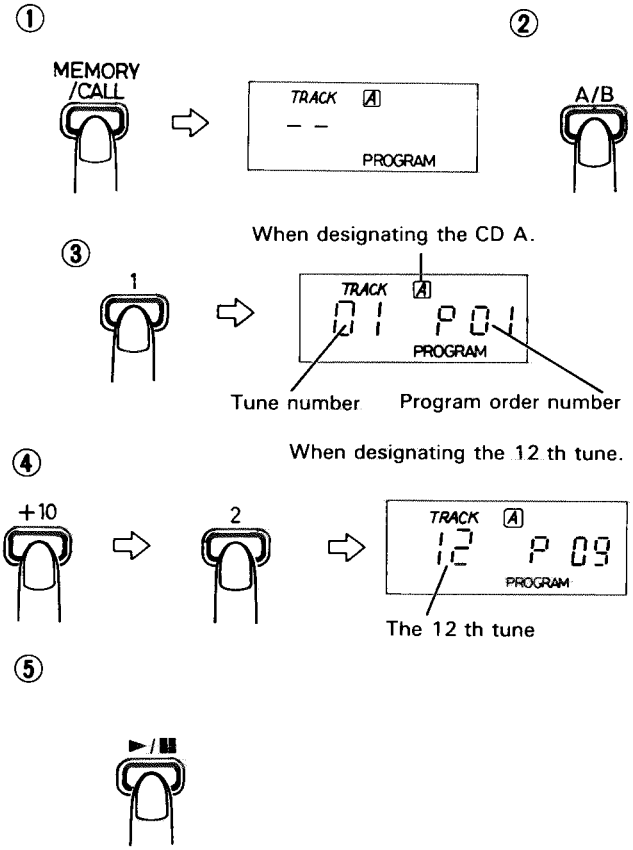
- To designate tune numbers 1 to 10, press the track number button corresponding to the tune (track) number.
- To designate tune number 11 or more, press the +10 button the required number of times, then a track number button. (Example: To designate the 30 th tune, press the +10 button twice then press track number button 10.)

* +10 button:
Each time this button is pressed, the number increases in increments of 10. First press this button to set the 10's digit, then press the track number button to set the 1's digit.

- **To play another tune during play**
When the required track number button is pressed, the display shows the designated track number and play starts from the beginning of the designated tune.

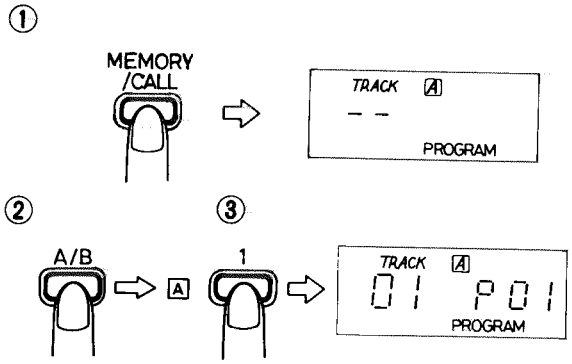
Programmed playback (using the remote control)

- **Up to 20 tunes can be programmed.**
(Programmed playback of CD A or CD B only)



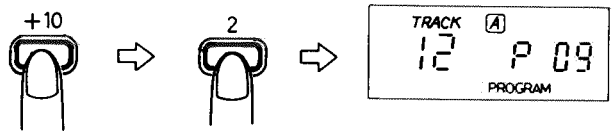
① Press the MEMORY/CALL button to set to the programming mode.
② Select the CD A or CD B with the CD A/B select button.
③ Press to designate the required track number.
④ Designate the remaining tunes by pressing track number buttons.
⑤ Press the ►/■■ button when programming is completed playback starts.

- **Up to 20 tunes can be programmed.**
(Programmed playback of CDs A and B)

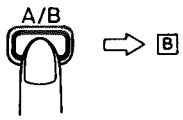


④

When designating the 12 th tune.

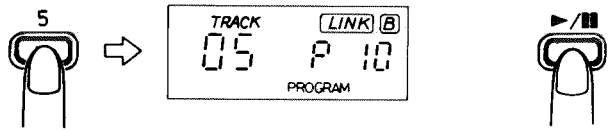


⑤



⑥ ⑦

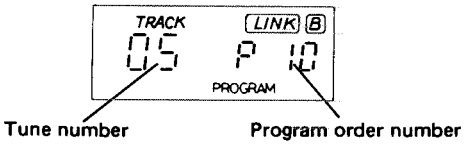
When designating the 5 th tune of the CD B.



① Press the MEMORY/CALL button to set to the programming mode.
② Set to the CD A play mode using the CD A/B select button.
③ Press to designate the required track number.
④ Designate the remaining tunes by pressing track number buttons.
⑤ Set to the CD B play mode using the CD A/B select button.
⑥ Designate the remaining tunes by pressing track number buttons.
⑦ Press the ►/■ button when programming is completed. Programmed playback starts.
- When programming tunes from both CD A and CD B, use the CD A/B select button to switch between the two CD.

To clear programmed tunes . . . .
Press the □ STOP/CLEAR button before playback. During programmed playback, press this button twice. When the disc holder is opened, the programmed tunes are automatically cleared.

To confirm the details of programmed tunes . . . .
When the MEMORY/CALL button is pressed, the details of programmed tunes are displayed in the programmed order.



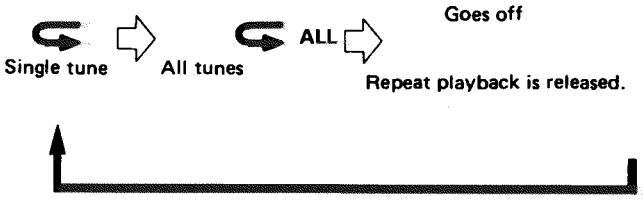
INTRO-scan operation (using the remote control)

- Just press to play the first 15 seconds of each tune. The operation is released after playing the introductory sections of all tunes or all programmed tunes.
- If the INTRO-scan button is pressed in the middle of a tune, the intro scan operation will start from the next tune.
- To release the intro scan mode, press the INTRO-scan button again and normal playback (or programmed playback) will start.

Repeat playback (using the remote control)

Press the REPEAT button before or during playback. A single tune or all the tunes can be repeated.

A single tune and all the tunes can be specified separately. Each time the REPEAT button is pressed, the mode will be changed from a single tune (↻) to all the tunes (↻ ALL) to the clear mode, in this order.



- **Repeat playback of a single tune (↻)**
  The tune being played back can be heard repeatedly.

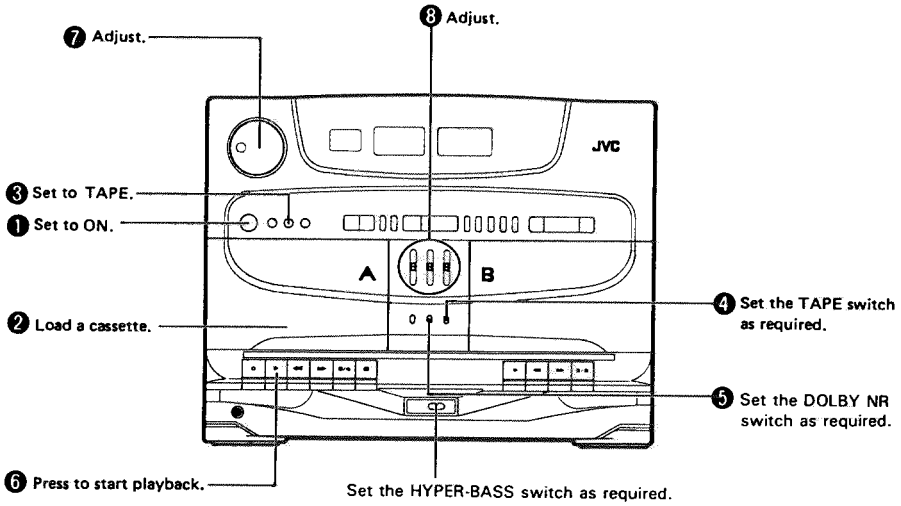
- **Repeat playback of all the tunes (↻ ALL)**
  When playing back the entire disc or programmed tunes, all the tunes or the programmed tunes can be heard repeatedly.

Random playback (using the remote control)

When the RANDOM button is pressed, every tune in a disc is played back once, in random order.

CASSETTE PLAYBACK
(The example shows deck A)

Operate in order shown.

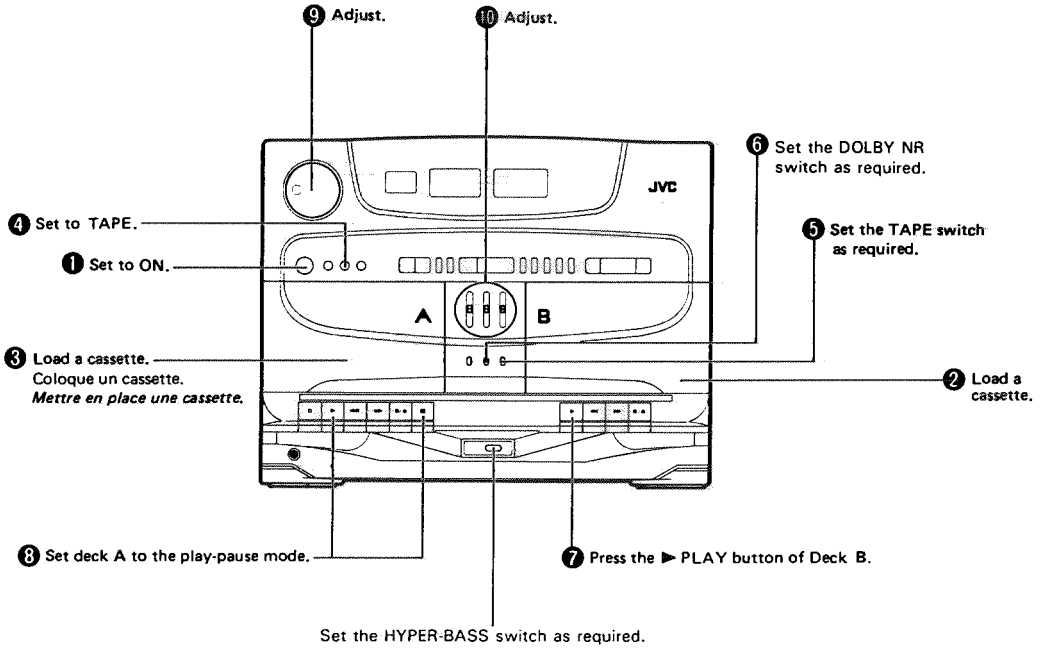


• **Playback in deck B**
The previous procedures ❹ – ❻ also apply to deck **B** when a cassette is loaded in deck **B**. When decks **A** and **B** are simultaneously set to the play mode, only the playback sound of deck **B** is heard.

Notes:
1. When the power is turned off while the tape is running, cassette operation buttons which are depressed do not return to the original positions.
   Press the ■ / ⏏ STOP/EJECT button to stop the tape running before turning off the power.
2. Avoid operating the FF or REW button on the deck during playback of the other deck.

RELAY PLAYBACK
(From deck B to deck A)

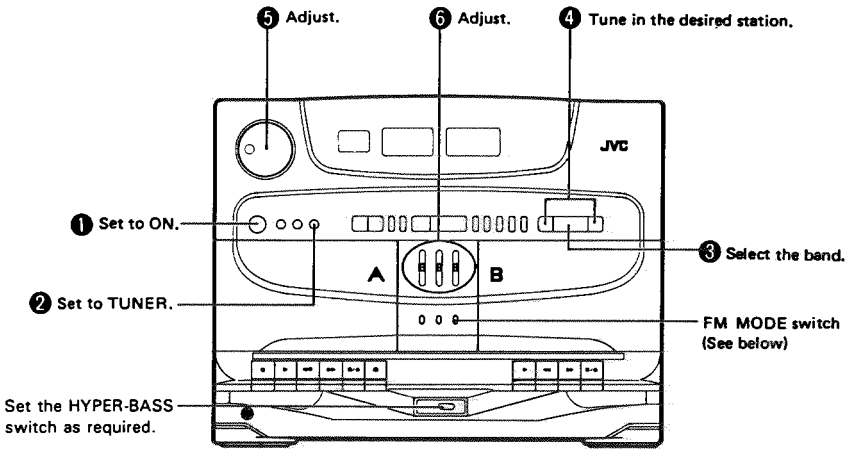
Operate in order shown.


❾ Adjust.
❿ Adjust.
❻ Set the DOLBY NR switch as required.
❹ Set to TAPE.
❶ Set to ON.
❺ Set the TAPE switch as required.
❸ Load a cassette.
Coloque un cassette.
Mettre en place une cassette.
❷ Load a cassette.
❽ Set deck A to the play-pause mode.
❼ Press the ▶ PLAY button of Deck B.
Set the HYPER-BASS switch as required.
JVC
A
B

Notes:
1. Use the same type of tape in decks **A** and **B**.
2. When deck **B** stops, deck **A**'s pause mode will be released and it will start playback. When deck **A** stops automatically, relay playback will be released.

RADIO RECEPTION

Operate in order shown.



FM MODE switch

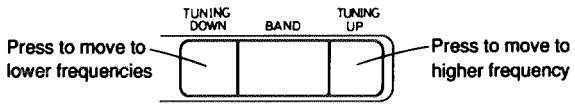
STEREO ( ):
Set to this position when listening to or recording an FM stereo broadcast.
MONO ( ):
Set to this position when FM stereo reception is noisy.

Seek tuning

By pressing the UP or DOWN button for more than 1 second, the unit enters the search mode and tunes to the adjacent station broadcasting at a higher or lower frequency.

Manual Tuning

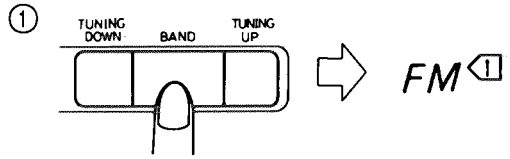
By Pressing the Tuning button, you can move up and down the frequency band, You can step through the frequency in 50 kHz units for FM, 9 kHz units for MW and 1 kHz units for LW.

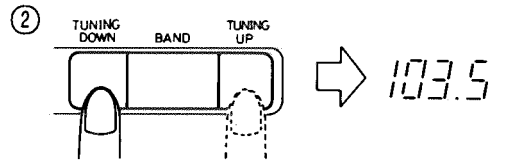


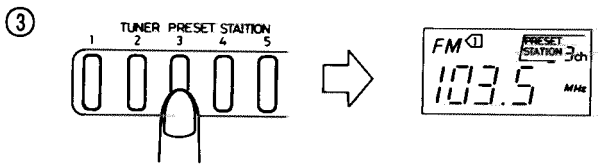
Presetting Stations

Five stations in each band (FM 1 , FM 2, MW and LW) can be preset as follows:

- Example (when presetting Preset button "3" to FM station at 103.5 MHz)







① Select the FM 1 band using the BAND button.
② Tune to the desired station.
③ Press Preset button "3" for more than 2 sec. (after 2 sec. the LCD display shows a flashing "3")

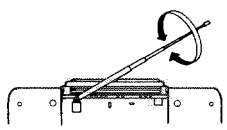
- Repeat the above procedure for each of the other four stations using a different Preset button each time.
- Follow the above procedure for the other bands (FM 2, MW and LW).

Note:
When the unit is used more than 30 minutes after being preset, the preset station memory will be held for approx. 24 hours after unplugging the power cord or removing the batteries. Presetting is required again when the preset stations are cancelled.

* The seek tuning, manual tuning and presetting stations can be operated using the remote control unit (see page 19).

Using the antennas

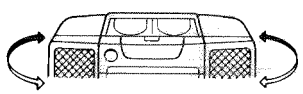
FM



Note:
The built-in ferrite core antenna can pick up interference tones from television receivers in the neighborhood and thereby disturb AM reception.

Utilisation des antennes

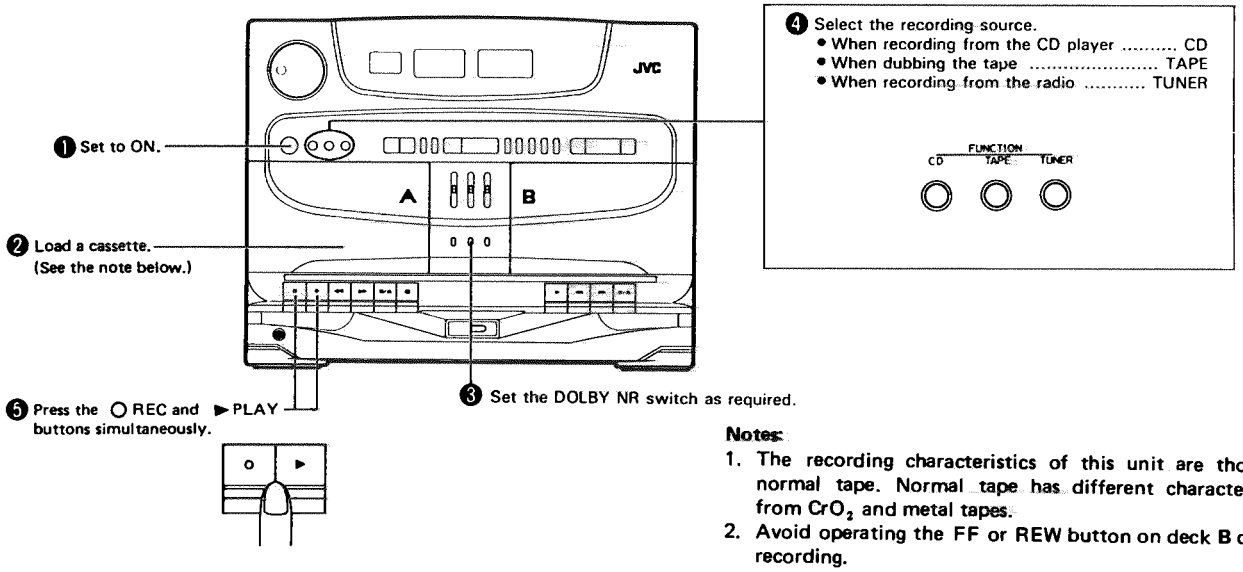
AM



RECORDING (Deck A)

- In recording, the ALC circuit automatically optimizes the recording level and adjustment of the recording level is unnecessary.

Operate in order shown.


❶ Set to ON.
❷ Load a cassette.
(See the note below.)
❸ Set the DOLBY NR switch as required.
❹ Select the recording source.
• When recording from the CD player ..... CD
• When dubbing the tape ..... TAPE
• When recording from the radio ..... TUNER
FUNCTION
CD
TAPE
TUNER
❺ Press the ○ REC and ▶ PLAY buttons simultaneously.
JVC
A
B

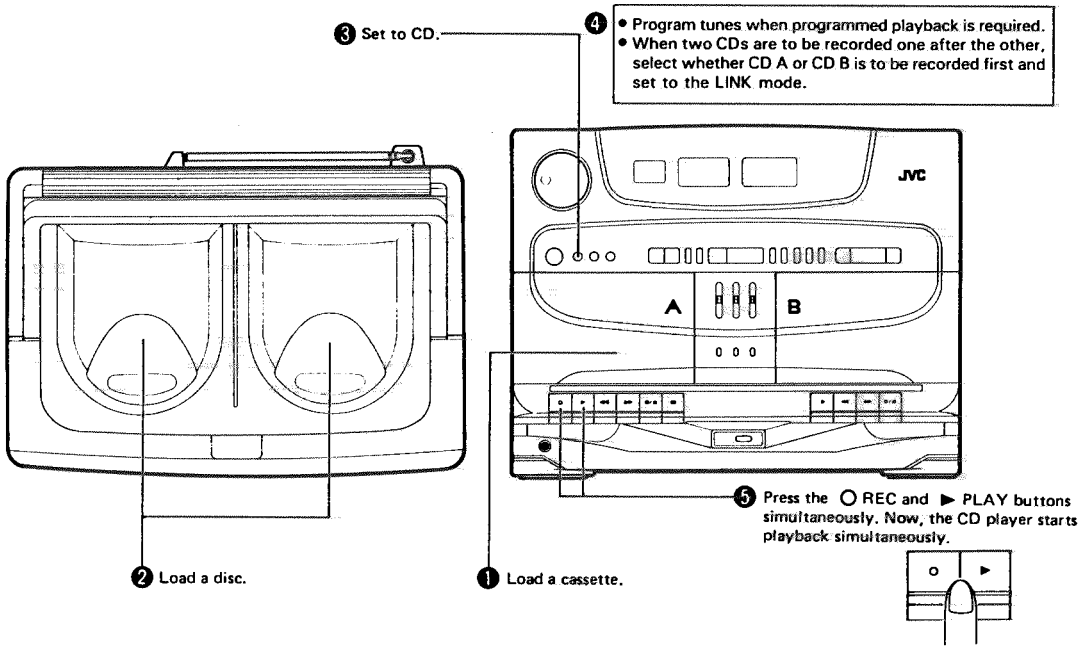
Notes:

1. The recording characteristics of this unit are those of normal tape. Normal tape has different characteristics from CrO_2 and metal tapes.
2. Avoid operating the FF or REW button on deck B during recording.

Synchronized recording with the CD Player

- In this system, the CD player starts playback when deck A enters the recording mode.

Operate in order shown.


❸ Set to CD.
❹ • Program tunes when programmed playback is required.
• When two CDs are to be recorded one after the other, select whether CD A or CD B is to be recorded first and set to the LINK mode.
❺ Press the ○ REC and ▶ PLAY buttons simultaneously. Now, the CD player starts playback simultaneously.
❷ Load a disc.
❶ Load a cassette.
JVC
A
B

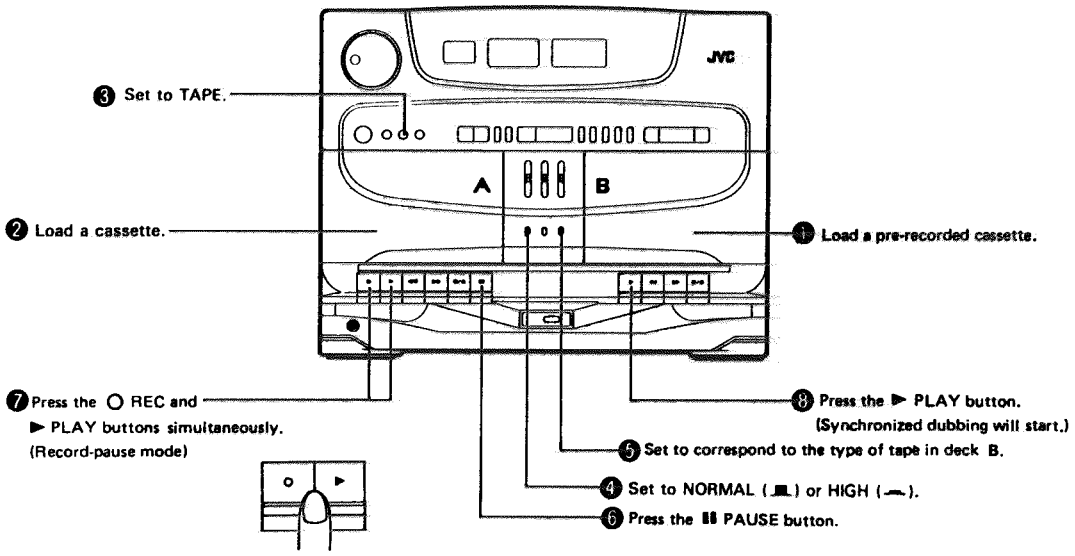
- Non-recorded sections of approx. 4 seconds are left automatically between tunes.
- When the tape reaches the end first, the CD player stops automatically; when the CD player stops first, the tape continues running. In this case, press the ■ / ≙ STOP/EJECT button to stop the tape.

- **When automatic spacing between tunes is not required . . .**
  Perform the following after finishing the previous operation (❶ – ❹).
  ① Press the ▷II PLAY/PAUSE button of the CD player twice. The CD player enters the pause mode.
  ② Press the ○ REC and ▶ PLAY buttons simultaneously. Now, the CD player starts playback simultaneously.

DUBBING (SYNCHRO START DUBBING)

Normal and high-speed dubbing can be done from deck **B** to deck **A**.

Operate in order shown.


JVC
A
B
❸ Set to TAPE.
❷ Load a cassette.
❶ Load a pre-recorded cassette.
❼ Press the ○ REC and ▶ PLAY buttons simultaneously. (Record-pause mode)
❽ Press the ▶ PLAY button. (Synchronized dubbing will start.)
❺ Set to correspond to the type of tape in deck B.
❹ Set to NORMAL ( ) or HIGH ( ).
❻ Press the ❚❚ PAUSE button.

Notes:

1. Television receivers placed close to this unit may cause interference on the recorded signal when this unit is used in the high-speed dubbing mode. If this happens, either turn off the television receiver or use the normal-speed dubbing mode.
2. In dubbing, the recording level is equal to the playback level of the tape being played in deck **B**. Noise reduction is automatically disabled during dubbing. Therefore, the copy will be an exact duplicate of the original; if the original tape is NR-encoded, the dubbed copy will also be NR-encoded.
   As the NR system does not affect the monitor's sound, the S.E.A. controls should be adjusted accordingly when monitoring a dubbing in which noise reduction is being performed.
3. With deck **A** in the record-pause mode, the ❚❚ PAUSE button is released when deck **B** enters the stop mode.
4. Avoid switching the FUNCTION switch during dubbing.

❚❚ PAUSE button

First of all, press the ❚❚ PAUSE button. Then, press the ○ REC and ▶ PLAY buttons, thus entering the record-pause (standby) mode. After that re-press the ❚❚ PAUSE button at the exact moment you want to start recording. This releases the tape to begin recording at a precise moment.

- **Do not leave the unit in pause mode for more than a few minutes. Instead, push the ■ / ⏏ STOP/EJECT button and turn the power off.**

Full auto-stop mechanism (both decks A and B)

When the tape reaches either end during the recording/playback and fast forward or rewinding mode, the tape stops automatically.

BEAT CUT switch

When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In such a case, set this switch so that the beats are eliminated. Normally set this switch to "NORM 1".

DOLBY NR switch

- Tape recorded using Dolby B NR must be played back through the corresponding circuit.

  Note:

  Proper sound quality will not be obtained if different DOLBY NR switch setting is used during recording and playback.

S.E.A. graphic equalizer system

Each knob can be adjusted ±10 dB. By raising a knob towards the "+" mark, the frequency band will be emphasized and lowering a knob towards the "-" mark will de-emphasize it.

S.E.A. should be used in different ways to compensate for the various conditions in different circumstances. Try various adjustments and learn how to use S.E.A. to its best advantage.

- The S.E.A. is effective only during playback with the FUNCTION switch of the TAPE, TUNER or CD position.
- Set each control to the "0" (click) position when not compensating sound using the S.E.A.

Erasing

When recording on a prerecorded tape, the previous recording is automatically erased and only the new program is recorded on the tape.

To erase a tape without making a new recording . . .

Follow the section "RECORDING" but in step ❹, set the FUNCTION switch to TAPE then perform recording to erase a tape.

1 Location of Main Parts

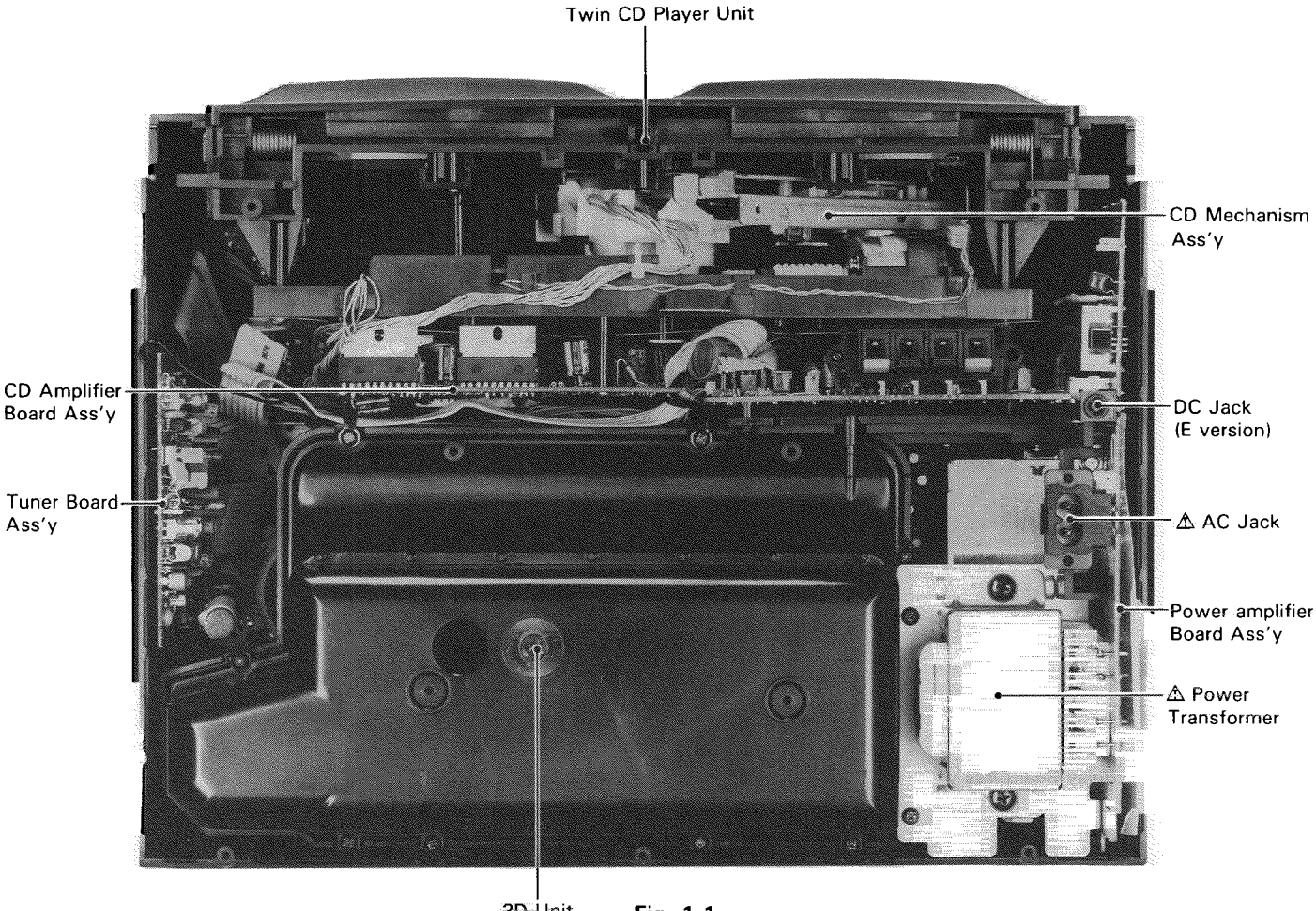


Fig. 1-1

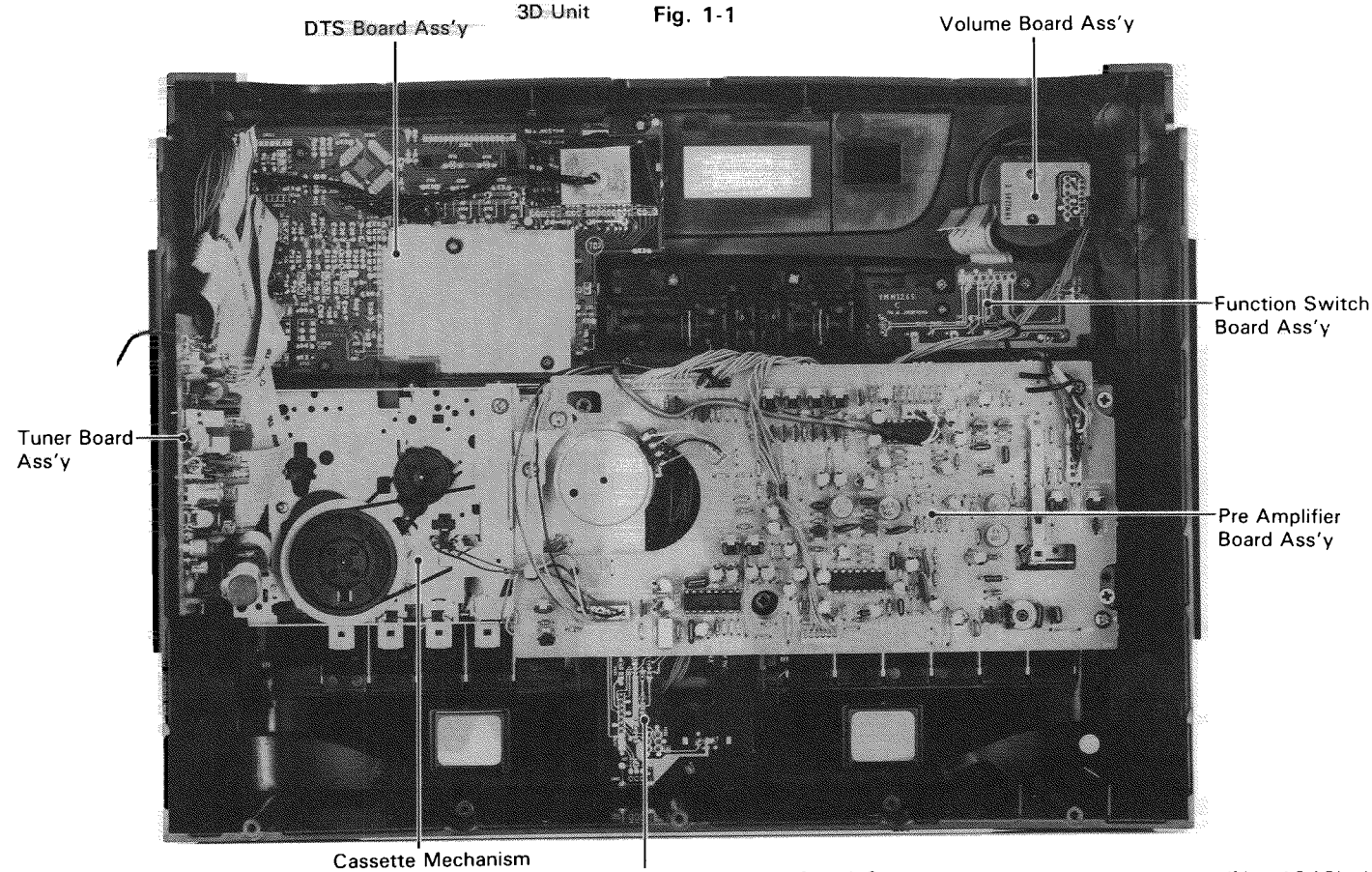


Fig. 1-2

(Twin CD Player Ass'y)

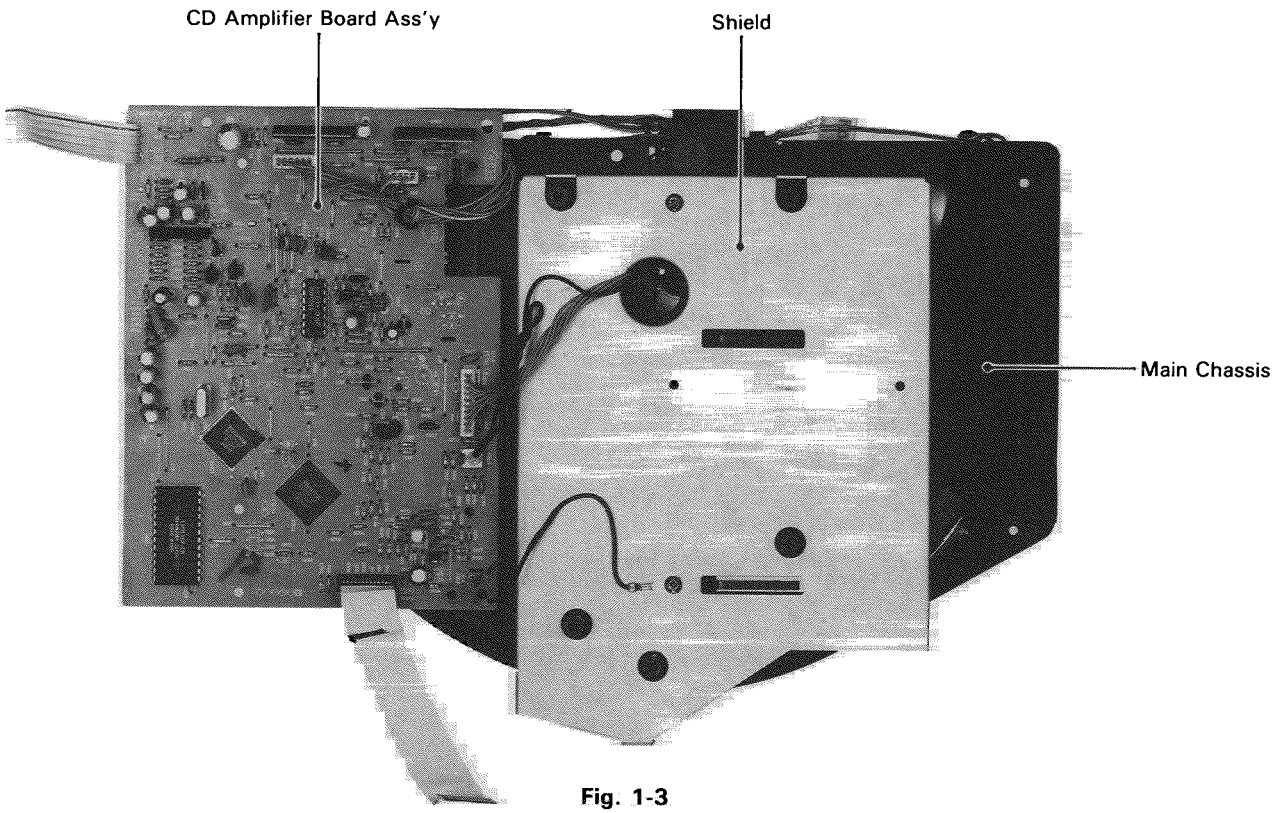


Fig. 1-3

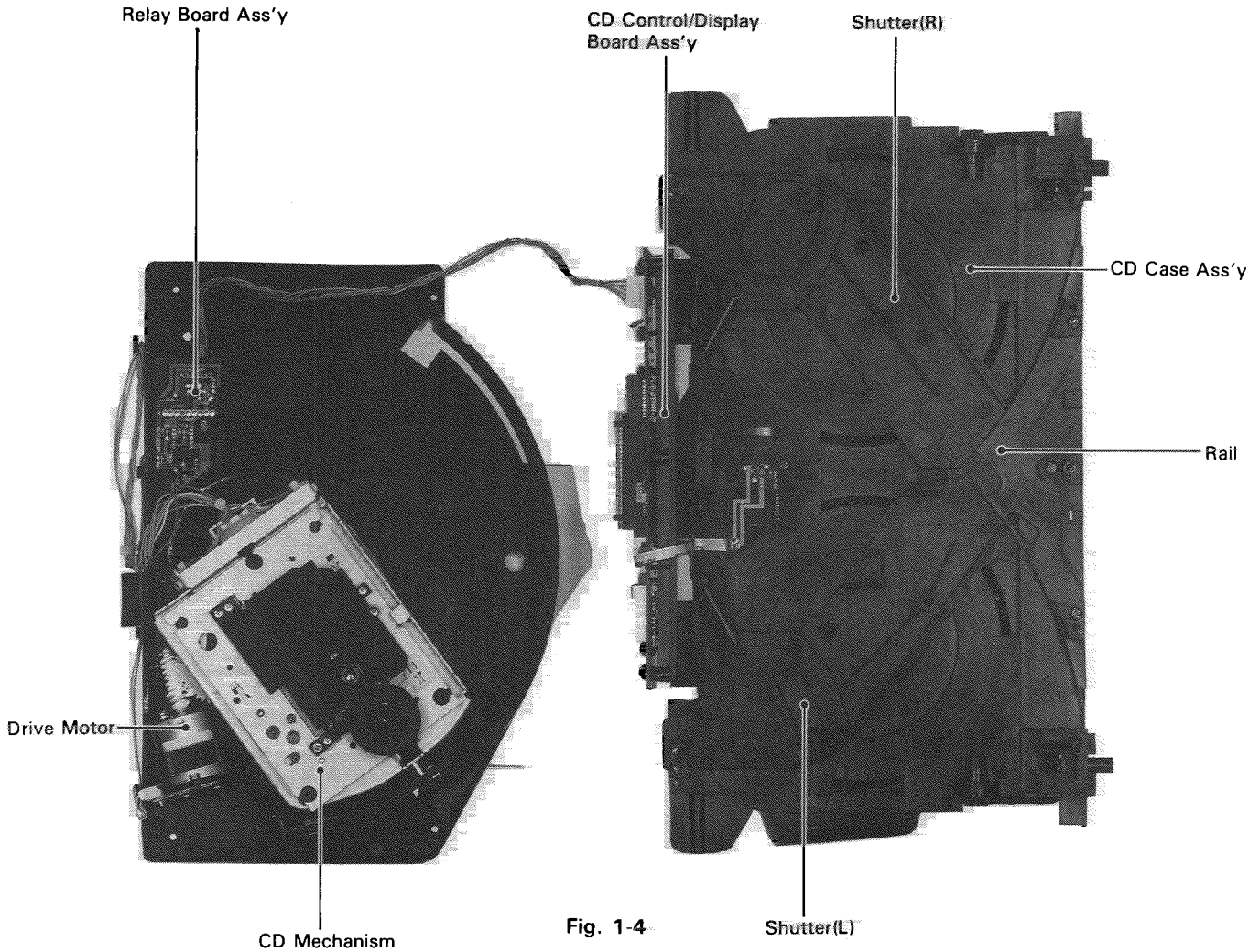


Fig. 1-4

2 Removal of Main Parts/Exploded View and Parts

<Enclosure Section>

BLOCK NO. M1MM

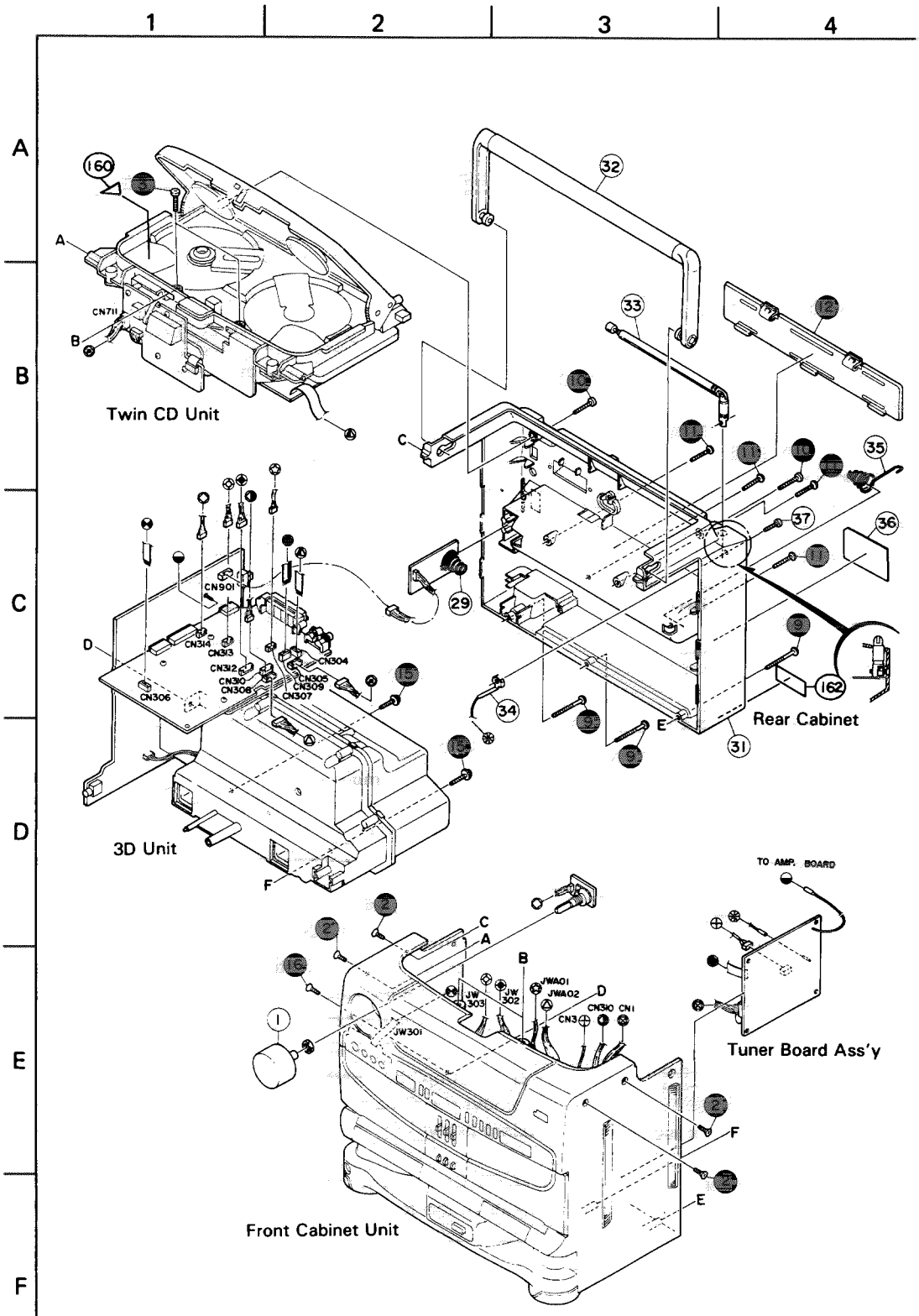


Fig. 2-1

■ Removing Manner of En

■ Rear Cabinet

1. Take out the battery cover (12
cabinet.
2. Remove nine screws ((9) × 3, (
ing the rear cabinet from back
3. Remove two screws (2) retaini
both side of front cabinet.
4. Remove the rear cabinet assem
antenna wire from the TP1 of tu
out the battery connector CN90
ass'y.

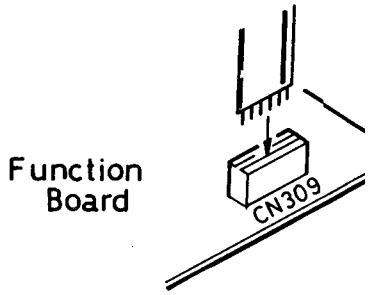
■ Twin CD Unit

1. Remove the rear cabinet.
2. Push the CD eject button and
3. Remove two screws (3) retaini
top side.
4. Remove two screws (2) retaini
both side of front cabinet.
5. Pull out the 6 PIN flat cable (fro
from the connector CN304 on t
6. Pull out the twin CD unit from th
7. Pull out the 11 PIN connector (
board ass'y) on the Function B

■ 3D Unit (with Function and Pc

1. Remove the rear cabinet and t

■ Note



arts List

r of Enclosure Assembly

over (12) from the back of rear

(9) × 3, (10) × 2, (11) × 4) retain-
ım backward.
) retaining the rear cabinet from
net.
t assembly, and then pull out the
P1 of tuner board ass'y, and take
or CN901 from power amp. board

et.
on and open the CD door.
) retaining the twin CD unit from

) retaining the twin CD unit from
net.
able (from CD Amp. Board Ass'y)
304 on the Function Board Ass'y.
from the front cabinet assembly.
nector CN305 (from CD control
nction Board.

n and Power Amp. Board Ass'y)
et and twin CD unit.

2. Remove a screw (16) retaining the power transformer bracket from left side of front cabinet.
3. Remove two screws (15) retaining the 3D unit at bottom side.
4. Disconnect wiring connectors on function board ass'y.
   a) Pull out CN 316 from function switch board ass'y.
   b) Pull out CN314 from volume board ass'y.
   c) Pull out CN307 and CN308 from preamp board ass'y.
   d) Pull out CN312 and CN313 from SEA board ass'y.
   e) Pull out CN310 from D.T.S. board ass'y.
   f) Pull out CN309 from tuner board ass'y.
   g) Pull out earth wire to amplifier board ass'y from tuner board ass'y.

■ Tuner Board Ass'y

1. Remove the rear cabinet and twin CD unit.
2. Disengage the wire dressing. Then, pull out the tuner board ass'y.
   (When the D.T.S. board ass'y has been removed from the front cabinet in advance, the tuner board ass'y can be pulled out easily without removing the connector.)

■ Volume Ass'y

1. Pull out the volume knob.
2. Remove the nut from the volume shaft.
3. Remove the volume ass'y backward.

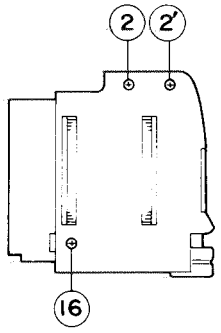


Fig. 2-2

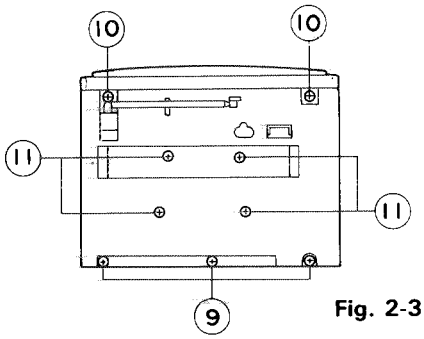


Fig. 2-3

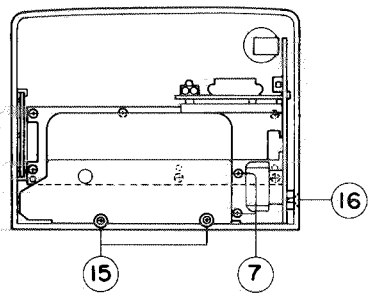
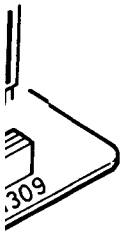


Fig. 2-4



• Enclosure Assembly Parts List

BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	1	VXL4388-001	VOLUME KNOB		1
	2	SSSF3012M	T. SCREW	F.CABINET-CD CASE	2
		SSSF3012M	T. SCREW		2
	3	SDSF3012M	SCREW	CD UNIT (TOP SIDE	2
	9	SBSF3035Z	SCREW		3
	10	SBSF3020Z	SCREW		2
	11	SBSF3012Z	SCREW		4
	12	VJC2016-020	BATTERY COVER		1
	15	SBSF3020Z	SCREW		2
	16	SSST3006M	SCREW		1
	29	VYH5483-001	BATTERY SPRING		1
	31	VJG1022-014	REAR CABINET	E. VERSION	1
	31	VJG1022-013	REAR CABINET	B. VERSION	1
	32	VJH4121-00A	HANDLE ASS'Y		1
	33	VJA3006-00E	T. ANTENNA ASSY		1
	34	VYH5012-004	TERMINAL LUG		1
	35	VYH5657-001	BATTERY SPRING		1
	36	VYN7058-005T	NAME PLATE	E. VERSION	1
	36	VYN7058-002T	NAME PLATE		1
	37	SDSP3012N	SCREW		1
	160	E71541-001	EI LASER MARK	E. VERSION	1
	162	VND4221-001	CLASS 1 LABEL		1

■ <Twin CD Section>

BLOCK NO. M2MM

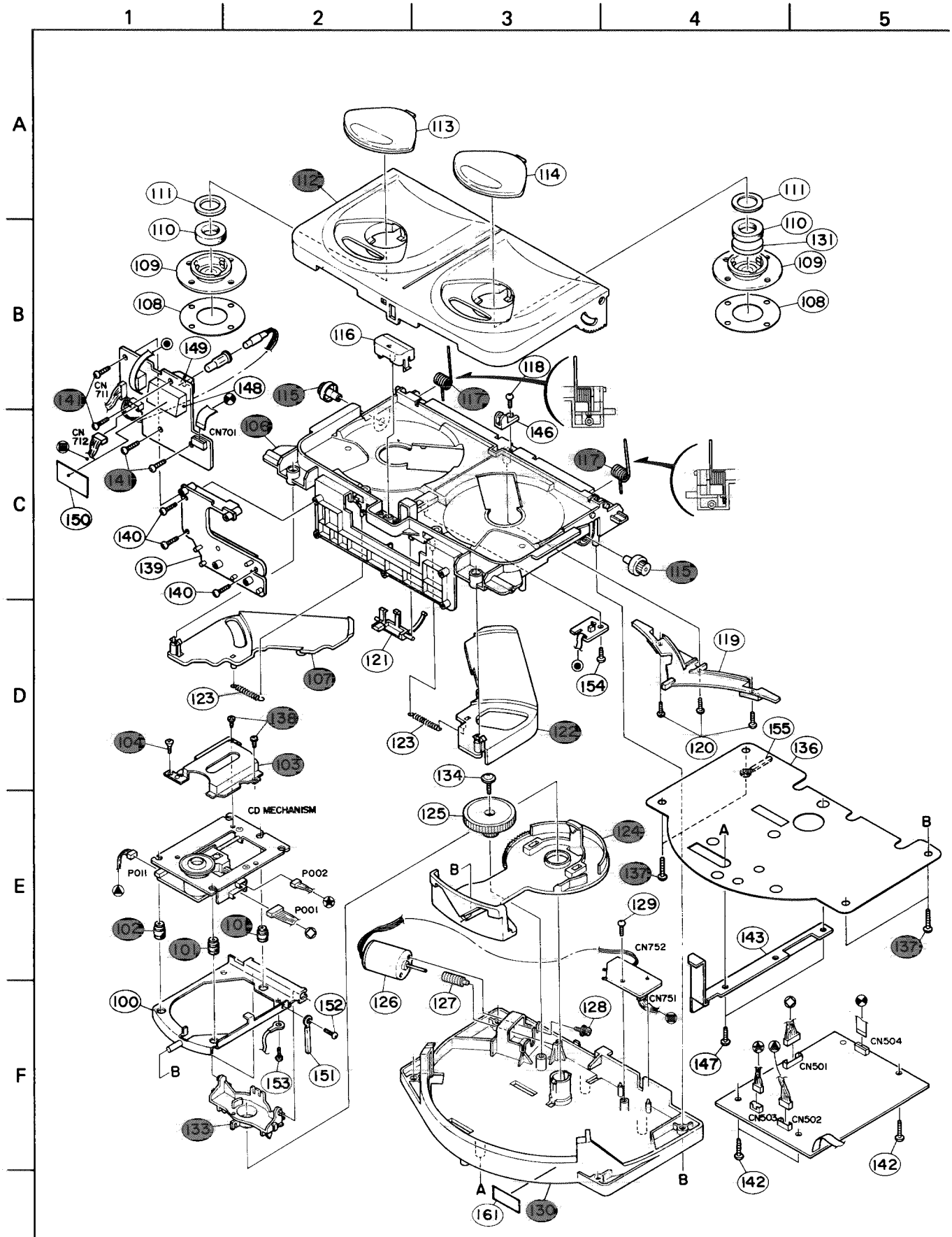


Fig. 2-5

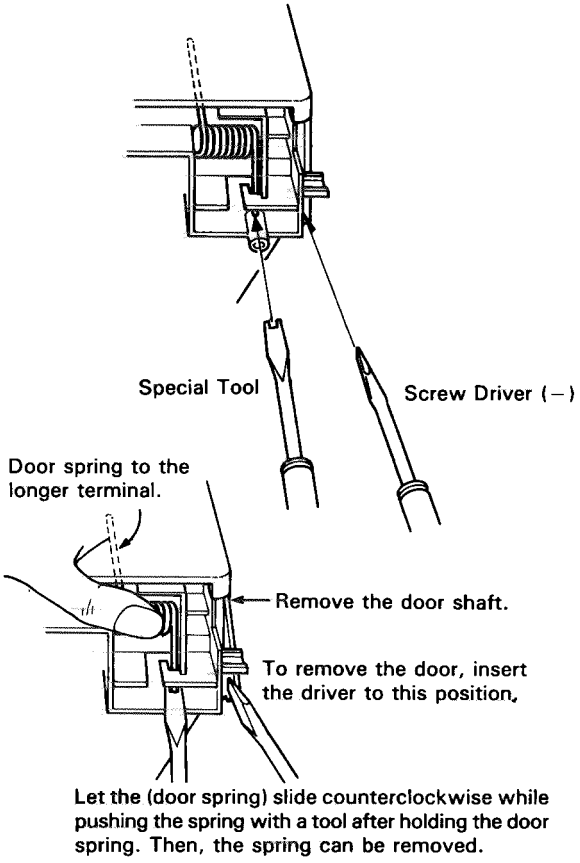

Special Tool
Screw Driver (−)
Door spring to the longer terminal.
Remove the door shaft.
To remove the door, insert the driver to this position.
Let the (door spring) slide counterclockwise while pushing the spring with a tool after holding the door spring. Then, the spring can be removed.

Fig. 2-6

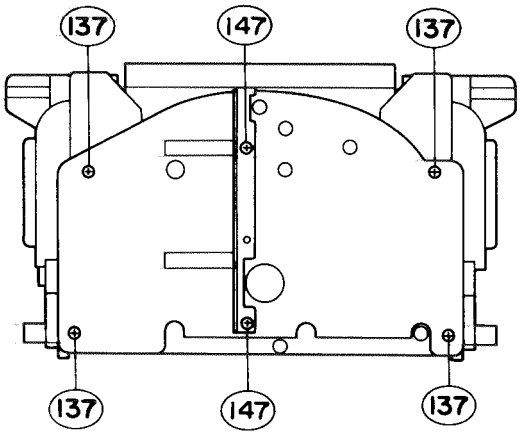


Fig. 2-7

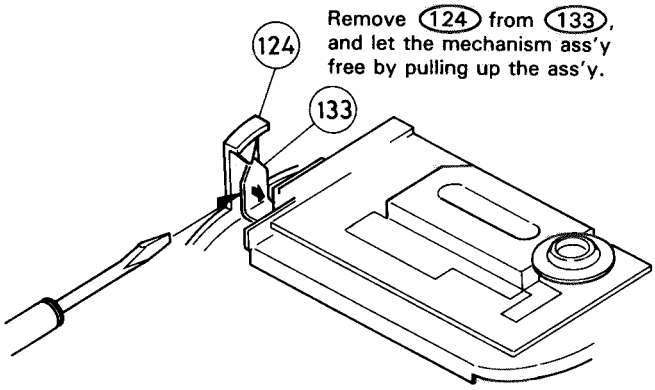


Fig. 2-8

■ Removing Manner of Twin CD Assembly

■ CD Door Assembly

1. Remove the door spring (117) provided on both sides behind the door, while holding it with a special tool, or (−) screw driver, etc. after pressing the spring section with a finger so that it will not come out.
2. Open the CD door and remove the arm section on both sides from the shaft (Remove the combination (assembly) by inserting screw driver, etc. between the CD case and CD door).
   1) At the time of reassembly, insert the longer CD door spring (117) at first, and hook the shorter spring on the CD case side after mounting the CD door (112) on the supporting point of the CD case (106) as indicated in the diagram.
   2) With a cotton swab or other applicator, coast a small amount of grease (G501) over the portion of the CD door spring (117) which will be rubbed.
3. Pull out the door damper gear (115).

■ CD Mechanism

1. Remove four screws (137) retaining the main chassis (130) to CD case (106).
2. Pull out the CN712 on CD control board.
3. Raise the main chassis from the rear side. At the time of assembly, slide the CD shutter (107) or (122) on the mechanism side to outside so that the shutter will not come into contact with the CD mechanism sub chassis side.
4. • Under this state, it is possible to change the pickup unit.
   • To disassemble the (mechanism) into the CD mechanism unit, remove the three rubber suspensions (101) and (102) from the mechanism chassis.
   • To remove the mechanism ass'y together with the sub chassis, remove the support arm (133) from the round cam (124). Then, it is possible to remove the assembly which the support arm can be dismounted (Remove the wires, etc. as necessary, and restore these into the initial conditions according to the same method at the time of assembly).

■ CD Amplifier Board Assembly

Remove the three screws (142) retaining the CD amplifier board ass'y.

■ CD Control Board Assembly

Remove the four screws (141) retaining the CD control board ass'y.

* Change of Pickup

1) Perform the work up to the step 3) of the CD mechanism.
2) Remove the three screws (104) and (138) retaining the pickup cover (103).
3) Remove the screw clamping the pickup unit shaft.
4) Dismount the connector to the pickup unit.
5) Remove the shaft from the pickup unit.

• Twin CD Assembly Parts List

BLOCK No. M2MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	100	VKM3553-00B	SUB CHAS.ASSY		1
	101	E75609-001	INSULATOR		2
	102	E75609-002	INSULATOR		1
	103	VJD5359-003	PICK COVER		1
	104	SSST2006Z	SCREW		1
	106	VJD1155-103UL	CD CASE		1
	107	VKS2220-001	SHUTTER(L)		1
	108	VYH7315-002	PAD	CLAMPER	2
	109	VKS3547-001	CLAMPER		2
	110	VYH7313-001	MAGNET	CLAMPER	2
	111	VYH7314-001	YOKE	CLAMPER	2
	112	VJT1040-001	CD DOOR		1
	113	VJD5360-001	CD LENS	CD-A	1
	114	VJD5360-002	CD LENS	CD-B	1
	115	VYH4769-002	GEAR		2
	116	VXP5061-001	BUTTON	OPEN	1
	117	VKW4977-002	CD DOOR SPRING		2
	118	SBSF3010M	T.SCREW	CENTER FULCRUM	1
	119	VKS2219-101	RAIL	CD CASE	1
	120	SBSF3010Z	SCREW	RAIL-CD CASE	3
	121	VKS5376-001	LOCK ARM		1
	122	VKS2220-002	SHUTTER(R)		1
	123	VKW4984-001	TENSION SPRING	SHUTTER	2
	124	VKS3545-002	ROUND CAM		1
	125	VKS5374-001	DRIVE GEAR		1
	126	MXN-13FB12F	DC MOTOR ASS'Y	A/B SELECT	1
	127	VKS5373-002	WORM GEAR		1
	128	DPSP3005Z	SCREW	A/B MOTOR	1
	129	SBSF3008Z	SCREW	A/B DETECT BOARD	1
	130	VKS1123-003	MAIN CHASSIS		1
	131	VYH7654-002	PLATE	CLAMPER	2
	133	VKS3546-001	SUPPORT ARM		1
	134	E65923-003	T.SCREW	DRIVE GEAR	1
	136	VYH3717-001	SHIELD		1
	137	GBSF3016Z	SCREW	CHASSIS	4
	138	SDST2006Z	TAPPING SCREW	PICK COVER	2
	139	VYH3676-001	CONTROL CHASSIS		1
	140	SBSF3012Z	SCREW	CD CASE-CHASSIS	3
	141	SBSF3012Z	SCREW	CD CONTROL BOARD	4
	142	SBSF3012Z	SCREW	CD AMP. BOARD	3
	143	VYH7506-001	BRACKET		1
	146	VKS2219-002	CENTER FULCRUM		1
	147	SBSF3010Z	SCREW	BRACKET	2
	148	VYH7497-001	CASE A		1
	149	VYH7498-001	CASE B		1
	150	VYH7508-001	SHEET (CD)		1
	151	VKZ4001-009	WIRE HOLDER	SUB CHASSIS	1
	152	SDST2604Z	SCREW	WIRE HOLDER	1
	153	SDST2604Z	SCREW	SUB CHASSIS	1
	154	SBSF3010Z	SCREW	DETECT BOARD	1
	155	VKZ4001-110	WIRE CLAMP	CD CHASSIS	1
	161	VND4220-001	LASER CAUTION	E. VERSION	1

<Front Cabinet Section>

BLOCK NO. M3MM

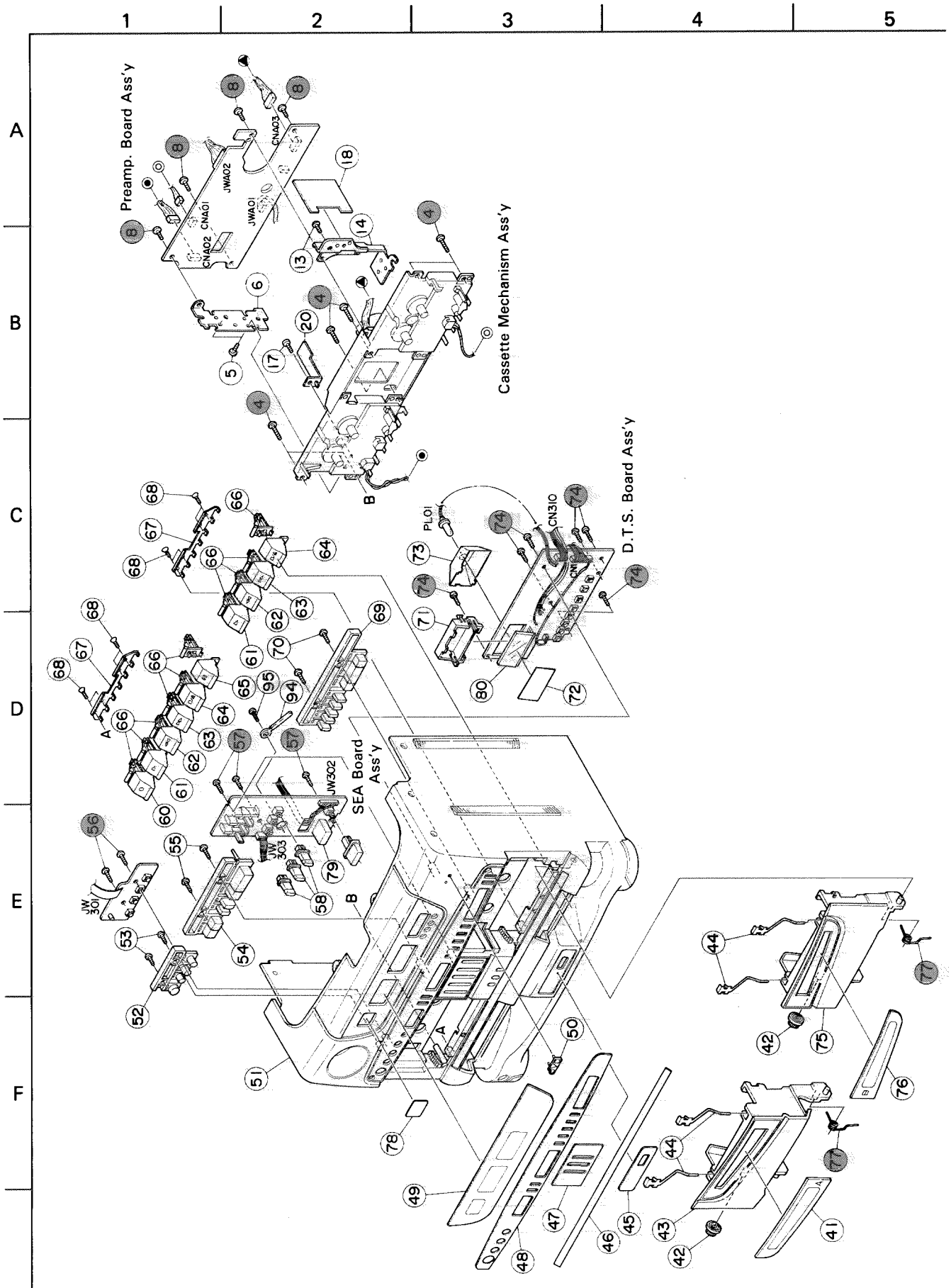


Fig. 2-9

■ Removing Manner of Front Cabinet Assembly

■ Preamp. Board Ass'y

1. Remove the rear cabinet, Twin CD unit, and 3D unit.
2. Disconnect connectors CNA01, CNA02, and CNA03 from Cassette Mechanism Ass'y.
   CNA01: Playback head wire.
   CNA02: Rec/Playback head wire.
   CNA03: Leaf switch wire.
3. Unsolder the capstan motor terminal.
4. Remove four screws (8) retaining the preamp. board ass'y

■ Cassette Mechanism Ass'y

1. Remove six screws (4) retaining the cassette mechanism ass'y to front cabinet ass'y.
2. Open the cassette doors and pull out the mechanism ass'y

■ D.T.S. (Digital Tuning System) Board Assembly

1. Remove the rear cabinet and twin CD unit.
2. Remove six screws (74) retaining the D.T.S. board assembly to front cabinet ass'y.
3. After removing the D.T.S. board ass'y, remove the tunes board ass'y, if necessary.
   Remove the D.T.S. board ass'y, and the tuner board as necessary.

■ SEA Board Ass'y

1. Remove the rear cabinet, Twin CD unit, 3D unit and cassette mechanism ass'y (with preamp. board ass'y)
2. Remove three screws (57) retaining the SEA board ass'y.

■ Function Switch Board Ass'y

1. Remove two screws (56) retaining the function board ass'y.

■ Button, etc.

1. Attach the respective buttons and button brackets, and remove the screws.

■ Cassette holder (door)

1. Remove the rear cabinet, Twin CD unit, 3D unit and cassette mechanism ass'y.
2. Remove the cassette holder springs (77) .
3. To disengage respective shafts of door holder arms [1] and [3] from the mechanism, insert a screwdriver between them and turn it as illustrated or use it as a lever of fulcrum.

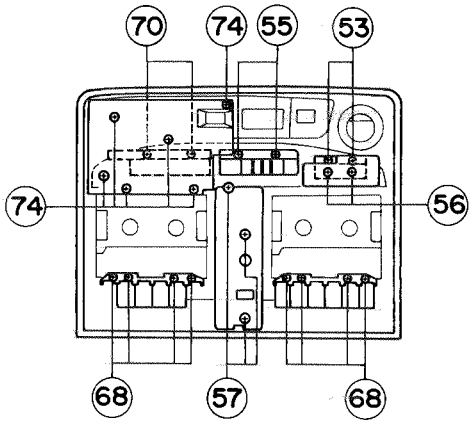


Fig. 2-10

How to Engage Cassette Holder Spring

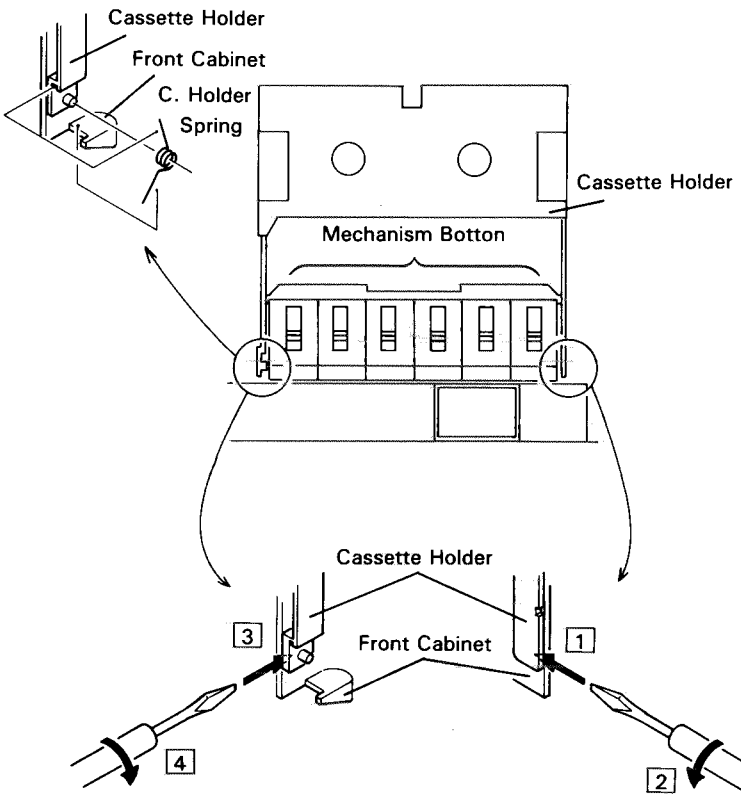


Fig. 2-11

• Front Cabinet Assembly Parts List

BLOCK NO. M3MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	45~51,78	ZCPRXT5E-FBK	FRONT CABINET ASS'Y		1
	41,43,44	ZCPRXT5K-CBKA	CASSETTE DOOR ASS'Y	DECK A	1
	44,75,76	ZCPRXT5K-CBKB	CASSETTE DOOR ASS'Y	DECK B	1
	4	SSSF3012Z	SCREW	FRONT+MECHA	6
	5	SPST2006Z	SCREW	PCB BKT+MECHA	2
	6	VYH7530-001	PCB BRACKET (L)	PREAMP.	1
	8	SBST3006Z	SCREW	PREAMP. BOARD	5
	13	SBST3006Z	SCREW		1
	14	VYH7504-001	PCB BRACKET (R)	PREAMP.	1
	17	SDST2003Z	SCREW		1
	18	VYH7629-001	SUPPORT BRACKET	PCB BRACKET	1
	20	VYH7507-001	REC SPRING	T.BKT+TRANS.	1
	41	VJT3319-003	CASSETTE LENS	DECK A	1
	42	VYH5601-001	GEAR	CASSETTE DOOR	2
	43	VJT2276-003	CASSETTE DOOR	DECK A	1
	44	VKY4180-001	CASSETTE SPRING		4
	45	VJD5366-002	3D LENS		1
	46	VJD3885-001	CONTROL PLATE		1
	47	VJD5367-001	CENTER LENS		1
	48	VJD3896-003	FUNCTION PLATE		1
	49	VJD3892-001	LCD LENS		1
	50	VJD4027-001	JVC MARK		1
	51	VKG1021-012	FRONT CABINET		1
	52	VXP3453-001	FUNCTION BUTTON		1
	53	SBSF3010Z	SCREW	FUNCTION BUTTON	2
	54	VXP3457-001	CD BUTTON		1
	55	SBSF3010Z	SCREW	CD BUTTON	2
	56	SBSF2608Z	SCREW	FUNCTION BOARD	2
	57	SBSF3010Z	SCREW	SEA BOARD	3
	58	VXP5064-001	PUSH BUTTON	DUBBING/DOLBY/TAP	3
	59	VXP5065-001	PUSH BUTTON	3D	1
	60	VXP3348-101	MECHA BUTTON	REC.	1
	61	VXP3348-103	MECHA BUTTON	PLAY	2
	62	VXP3348-104	MECHA BUTTON	REW	2
	63	VXP3348-105	MECHA BUTTON	FF	2
	64	VXP3348-106	MECHA BUTTON	STOP/EJECT	2
	65	VXP3348-107	MECHA BUTTON	PAUSE	1
	66	VKS4843-002	BUTTON LEVER	MECHA.BUTTON	10
	67	VKL6107-002	BUTTON BRACKET	MECHA.BUTTON	2
	68	SSSF2606Z	SCREW	FRONT+BUTTON BKT	6
	69	VXP3458-003	TUNER BUTTON		1
	70	SBSF3010Z	SCREW	TUNER BUTTON	2
	71	VYH7499-001	CASE C	DTS	1
	72	VYH7074-001	SHEET	DTS	1
	73	VYH7500-001	CASE D	DTS	1
	74	SBSF2608Z	SCREW	DTS BOARD	6
	75	VJT2276-004	CASSETTE DOOR	DECK B	1
	76	VJT3319-004	CASSETTE LENS	DECK B	1
	77	VYH7214-002	DOOR SPRING	CASSETTE	2
	78	VYTT489-002	FILTER	REMOTE SENSOR	1
	79	VYH7544-001	LED HOLDER	3D LED	1
	80	VGL1106-001	LCD	DTS	1
	94	VKZ4001-110	WIRE CLAMP		1
	95	SBSF3010Z	SCREW		1
	LCD 1	VGL1106-001	LCD		1

<3D Section>

BLOCK NO. M4MM

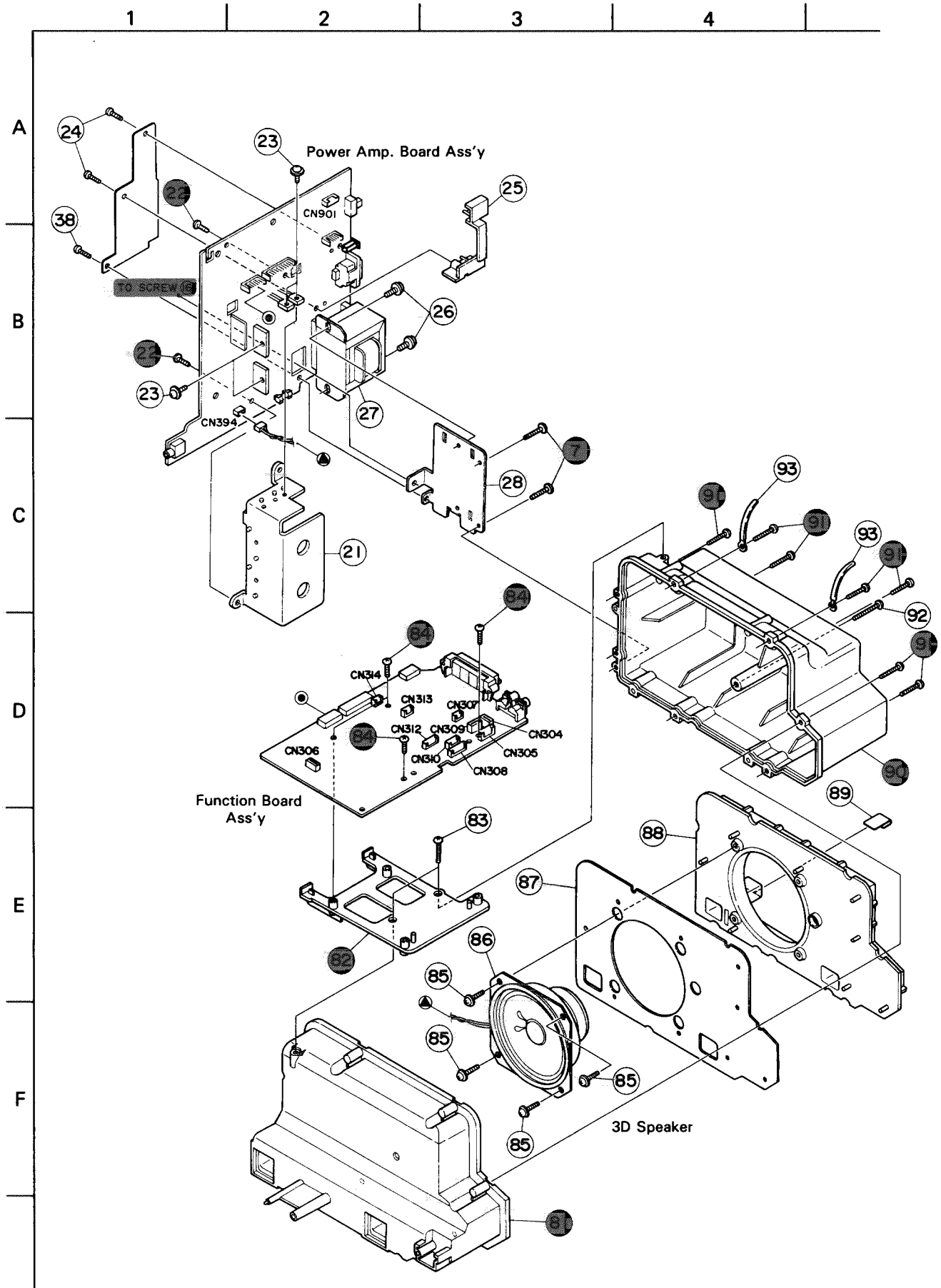


Fig. 2-12

■ Removing Manner of 3D Assembly

■ Power Amp. Board Ass'y

1. Remove three screws (16) and (22) retaining the power amp. board ass'y.
2. Remove two screws (7) retaining the power transformer bracket to 3D case.
3. Remove four screws (84) retaining the function board ass'y.
4. Remove the power amp. board ass'y from the amp. chassis (82) and disconnect the three connectors (CN301, CN302, and CN315) from the function board.

■ Function Board Ass'y

1. Remove the four screws (84) clamping the function board ass'y, and dismount the printed circuit board stopper while raising the printed circuit board. Then, pull out the function board ass'y by removing the connector with the power amp.

■ 3D Speaker

Remove seven screws (91) retaining the 3D covers ((81) and (90)).

• 3D Assembly Parts List

BLOCK NO. M4MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	7	SBSF3020Z	SCREW	TRNS/BRACKET	2
	19	VYH7621-002	BARRIER		1
	21	VYH3682-002	RADIATION		1
	22	SBSF3008Z	SCREW	RADIATION	2
	23	DPSP3010Z	SCREW	IC	4
	24	SBSF3008Z	SCREW	AC HOLDER	2
	25	VYH7503-001	AC HOLDER		1
	26	VKZ3001-004	SPECIAL SCREW	FOR TRANSFOMER	2
	27	VTP57P2-12C	POWER TRANS.	E. VERSION	1
	27	VTP57P2-12CBS	POWER TRANS.	B. VERSION	1
	28	VYH3683-001	TRANS BRACKET		1
	38	SBST3006Z	SCREW	T.BRACKET- P.BOAR	1
	81	VYH1207-002	3D COVER(F)		1
	82	VYH3675-001	AMP CHASSIS		1
	83	SBSF3014Z	SCREW	AMP CHASSIS	2
	84	SBSF3010Z	SCREW	FUNCTION BOARD	4
	85	GBSF3012Z	SCREW	FOR SPEAKER	4
	86	EAS10PL429E	SPEAKER		1
	87	VYH3594-001	SPACER		1
	88	VYH2249-003	3D BASE		1
	89	VYSF101-027	SPACER		1
	90	VYH1208-002	3D COVER(R)		1
	91	SBSF3020Z	SCREW	3D COVER	7
	92	SBSF3025R	SCREW	3D COVER	1
	93	VKZ4001-111	WIRE HOLDER		2
	T 999	VTP57P2-12B	POWER TRANS.	POWER TRANS	1

<Speaker Box Section> Block No. M5MM

1. From the grill assembly (1), remove the four screws (5) retaining the rear cabinet (4).
2. With a minus screw driver, remove the speaker cord (9) clamping the stoper (7).
3. Pull out the rear cabinet (4) from the grill assembly (1).
4. From the grill assmbly (1), remove the four screws (8) retaining the speaker (10).

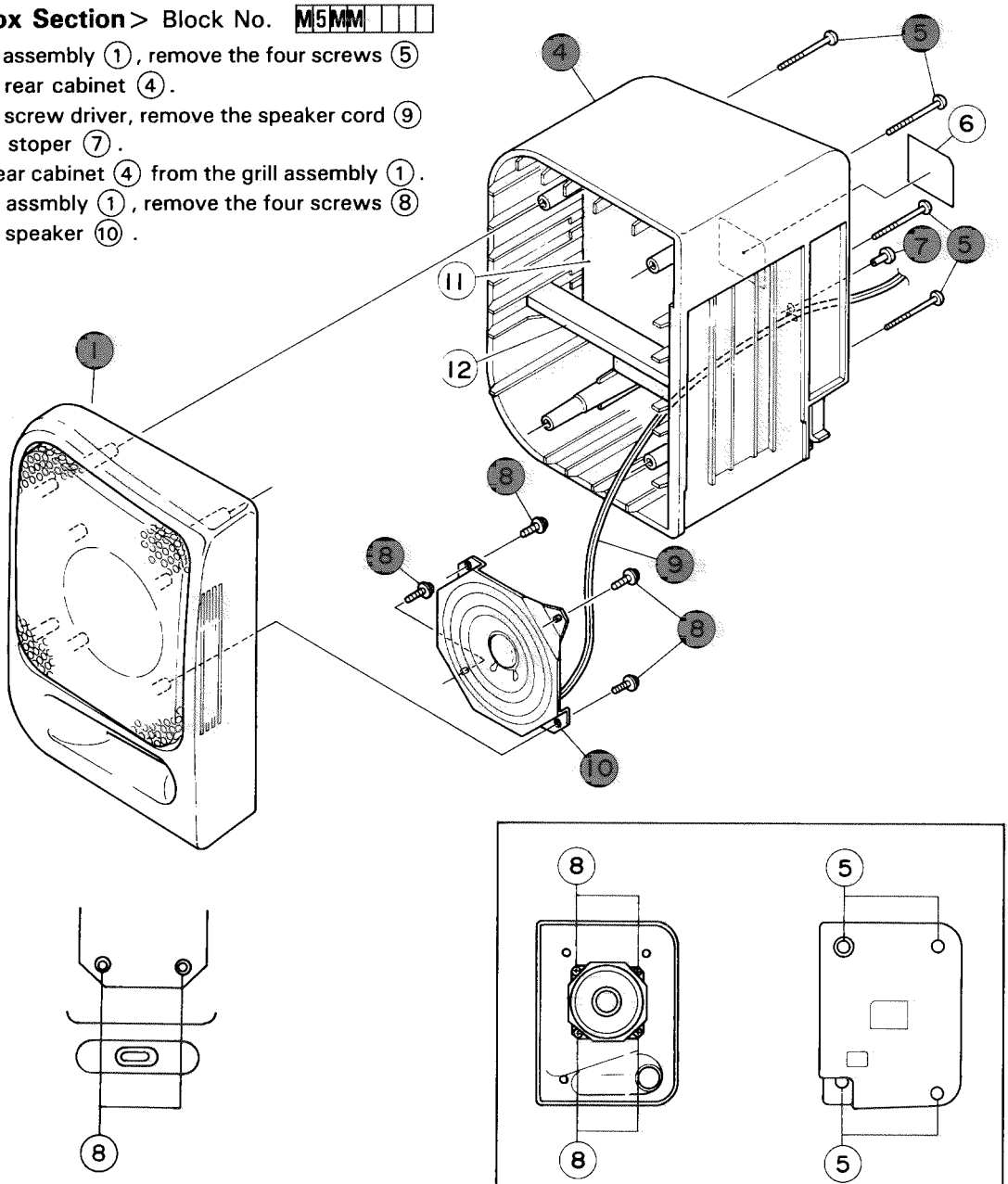


Fig. 2-13

■ Speaker Box Parts List

BLOCK NO. M5MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	1	VJC2438-00A	SP PANEL ASS'Y	LEFT SIDE	1
		VJC2438-00B	SP PANEL ASS'Y	RIGHT SIDE	1
	4	VJG1019-001	REAR CABINET	LEFT SIDE	1
		VJG1019-002	SP REAR CABI(R)	RIGHT SIDE	1
	5	SBSF3040Z	SCREW	FOR CABINET	4
	6	VYN7058-001B	NAME PLATE		1
	7	VJD5373-001SS	STOPPER		1
	8	GBSF3010Z	TAPPING SCREW	FOR SPEAKER	4
	9	VMP0040-002T	SPEAKER COARD		1
	10	EAS10P463A1	SPEAKER		1
	11	VKZ4658-001	SOUND ABSOBER		1
	12	VYH3710-001	STAY		1

<CD Mechanism Section>

BLOCK NO. M6MM

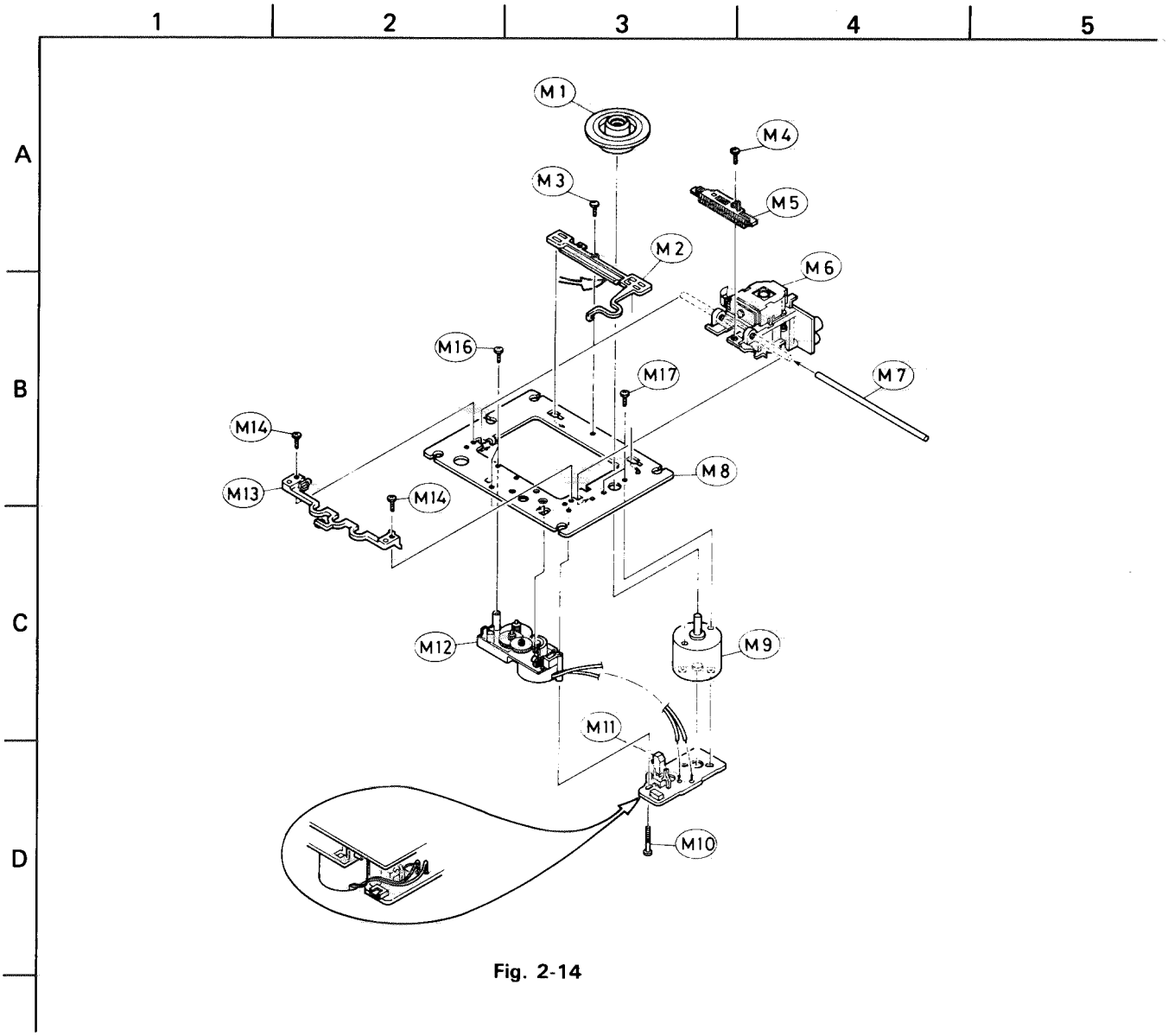


Fig. 2-14

■ CD Mechanism Parts List

BLOCK NO. M6MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	M1	E406064-002	CD Turn Table Ass'y		1
	M2	E306275-003	CD Suport		1
	M3	SDST2005Z	Screw		1
	M4	SPSH2050M	Screw		1
	M5	E306282-001	CD Luck Ass'y		1
	M5	OPTIMA-5S	Pick Up Unit		1
	M7	E74930-003	Shaft	For Pick Up	1
	M8	E26487-003	Chassis Base		1
	M9	E74539-001B	Spindle Motor		1
	M10	E75832-001	Screw	For Leaf Switch	1
	M11	ESB1100-005	Leaf Switch		1
	M12	SE10351-11	Gear Ass'y		1
	M13	E306277-001	Screw		1
	M14	SDST2004Z	Screw		1
	M16	E72713-001	Screw		1
	M17	SDSP2003N	Screw		2

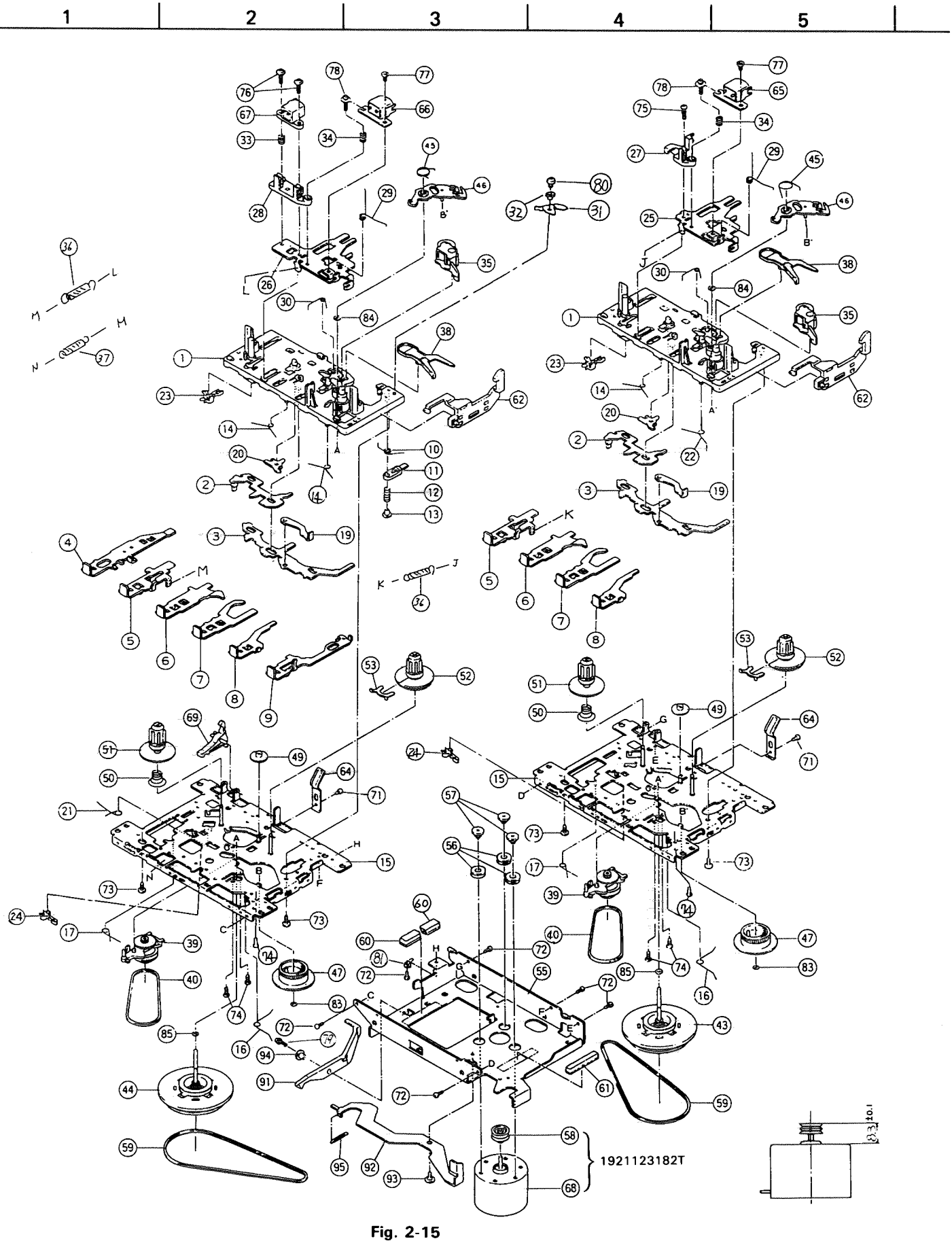


Fig. 2-15

• Cassette Mechanism Component Parts List

BLOCK No. M7MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
⚠	**58,68**	**1921123183T**	**MOTOR ASS'Y**		**1**
	1	192114301T	BASE ASS'Y		2
	2	19211409T	SWITCH ACTUATOR		2
	3	19211438T	PUSH BUTTON ACTUATOR		2
	4	19211422T	BUTTON LEVER	REC	1
	5	19211484T	BUTTON LEVER	PLAY	2
	6	19211424T	BUTTON LEVER	REW	2
	7	91211425T	BUTTON LEVER	FF	2
	8	19211426T	BUTTON LEVER	STOP	2
	9	19211461T	BUTTON LEVER	PAUSE	1
	10	19211413T	P CONTROL SPRING		1
	11	19211455T	PAUSE LEVER (E)		1
	12	19211412T	PAUSE LEVER SPRING		1
	13	19211411T	PAUSE STOPPER		1
	14	19211414T	BUTTON LEVER SPRING (A)		3
	15	192101501T	CHASSIS ASS'Y		2
	16	19211416T	E ACTUATOR SPRING		2
	17	19211417T	P.S. LEVER SPRING		2
	19	182101159T	E KICK LEVER		2
	20	19211420T	P.R. STOPPER		2
	21	19211421T	BUTTON LEVER SPRING	REC	1
	22	19211433T	BUTTON LEVER SPRING (C)		1
	23	640101149T	LEAF SWITCH	MSW-1541T	2
	24	640101161T	LEAF SWITCH	MSW-17820MDVO	2
	25	19210311T	HEAD PANEL		1
	26	19210312T	HEAD PANEL		1
	27	19210304AT	HEAD BASE		1
	28	19210306T	HEAD BASE		1
	29	19210309T	PANEL P SPRING		2
	30	19211418T	M. CONTROL SPRING		2
	31	19211437T	P. ARM. COLLER		1
	32	19211434T	P. ARM		1
	33	18210308T	EH SPRING		1
	34	18210307T	AZIMUTH SPRING		2
	35	192104306T	PINCH ROLLER ARM ASS'Y		2
	36	18210150T	BUTTON LEVER SPRING (S)	PLAY	2
	37	18211311T	E. SLIDE LEVER SPRING		1
	38	19212604T	SENSING LEVER		2
	39	192107302T	RF CLUTCH ASS'Y		2
	40	18210711T	RF BELT		2
	43	192109310T	FLYWHEEL ASS'Y		1
	44	192109309T	FLYWHEEL ASS'Y		1
	45	19212605T	GEAR PLATE SPRING		2
	46	192126502T	GEAR PLATE ASS'Y		2
	47	19212602T	CAM GEAR		2
	49	18211070T	FF GEAR		2
	50	18291010T	BACK TENSION SPRING		2
	51	192105304T	SUPPLY REEL ASS'Y		2
	52	192105303T	TAKE UP REEL ASS'Y		2
	53	19210506T	SENSER		2
	55	19211210T	MOTOR BRACKET		1

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	56	18211266T	MOTOR RUBBER		3
	57	18511418T	MOTOR COLLER SCREW		3
	59	19210906T	MAIN BELT		2
	60	18211278T	ANTI VIBRATION FELT MAT		2
	61	182112126T	ANTI VIBRATION FELT MAT		1
	62	19211302T	EJECT SLIDE LEVER		2
	64	18291001T	PACK SPRING		2
	65	62020178	P. HEAD	VGH0421-020	1
	66	62020178	R.P. HEAD	VGH0421-020	1
	67	62021421	E. HEAD	LE15A-C1	1
	68	1921123182T	MOTOR ASS'Y	SHU-9L53	1
	69	18211069T	RECORD SAFETY LEVER		1
	71	91790000T	C. TAPPING SCREW	M2x3	2
	72	91800000T	C. TAPPING SCREW	M2x4	6
	73	96790000T	P. TAPPING BING SCREW	M2x5	4
	74	99991809T	TAPPING SCREW (FOR CAMERA)	M2x4.5	6
	75	90040000T	SCREW	M2x6	1
	76	92230000T	+ − CAP SCREW	M2x7.5	2
	77	91150000T	+ BIND SCREW	M2x3	2
	78	99220000T	AZIMUTH SCREW	M2x7	2
	79	91820000T	C. TAPPING SCREW	M2x6	1
	80	99992041T	P.S. TAPPING SCREW	M2x3	1
	81	94800000T	LUG	3B)2.0	1
	83	94220000T	P. WASHER CUT	1.2x3.8x0.3	2
	84	99990313T	P. WASHER CUT	1.45x3.8x0.5	2
	85	97860000T	P. WASHER	2x3.5x0.3	2
	91	19211209T	P. KICK LEVER (B)		1
	92	182112154T	P. KICK LEVER (A)		1
	94	18211265T	COLLER (B)		1
	95	18211225T	P. KICK LEVER SPRING		1

3 Main Adjustment

■ Equipment and Measuring Instrument used for Adjustment

Electronic voltmeter
Audio frequency oscillator
Attenuator
Wow-flutter meter
Frequency counter
Standard signal generator
Torque testing cassette gauge CTG-N
Adjust tape
Measuring tape : TS-8 (UR)
VTT703 (10 kHz)
VTT712 (3 kHz)
VTT724 (1 kHz)
VTT739 (63 kHz/7 kHz/10 kHz)

■ Condition for Measurements

Power Supply ..... AC 230 V (50/60 Hz)
DC 12 V
Reference output ... Speaker: 50 mW (0.39 V)/3 Ω

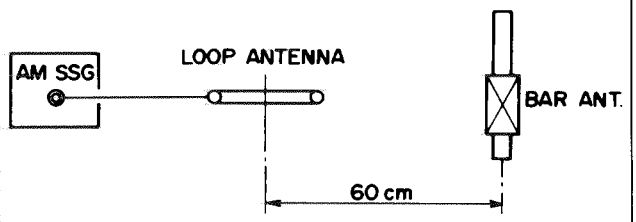
Function position ....TAPE/FM MODE : TAPE NORMAL
FUNCTION : NORMAL SPEED
SEA : Centre
3D : OFF
BEAT CUT : NORMAL

■ Condition for Measurement: Tuner Sections

Applied voltage of the Tuner : DC 5.7 V
Connect a 47 Ω resistor in series with are power supply.
Reference output : Speaker ; 50 mW (0.39 V)/3 Ω
Input signal : (AM) modulation frequency; 400 Hz, 30%
(FM) Modulation frequency;
400 Hz, 22.5 kHz dev.
Set position of Volume and Switch : SEA; Center

Attentive point
Connection of IF sweeper :
Connect a 30 pF capacitor and a 33 kΩ resistor in series to the sweeper's output and a 0.082 μF capacitor and a 100 kΩ resistor in series to the input.
IF sweeper's output level :
Set at the lowest level that will allow adjustment.

Loop Antenna



• Location of Adjustment

(Tuner)

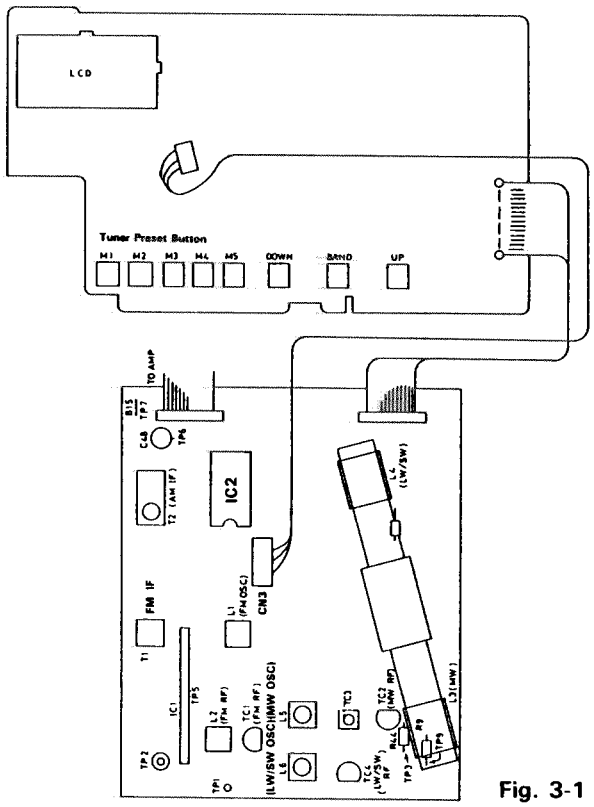
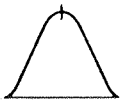
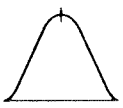
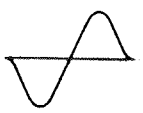


Fig. 3-1

■ Tuner Alignment

BASIC CONDITIONS

POWER SOURCE OF THE RECEIVER	DC 12 V, AC 230 V (Tuner input: DC 5.6 V)
LOAD RESISTANCE OF THE RECEIVER	50 mW (0.39 V)/3 Ω
MODULATION OF SSG	AM: 400 Hz 30% FM: 400 Hz 22.5 kHz DEV:

Item	Description
1. AM IF ALIGNMENT (The unit should not usually require adjustment. Follow the steps below when adjustments are necessary).	
1-1 Conditions of the receiver	
(1) Power source:	DC 5.6 V (When the power is supplied directly to the tuner in the receiver, the voltage should be adjusted to the proper level which shall be required by the tuner.)
(2) Function switch position:	RADIO
(3) Band select switch:	AM
(4) Volume control:	Minimum gain position
(5) SEA control:	Center position
(6) Reception frequency:	Set the reception frequency to the highest position and to the position where the signal does not enter.
1-2 Connection of Sweeper and the receiver	
(1) Tuner input:	Positive side to TP3
(2) Tuner output:	Positive side to TP6 Negative side to TP7]
1-3 Aligning position:	T2
1-4 Alignment (Waveform):  Fig. 3-2	Adjust AM I.F.T. (above mentioned aligning position) so that maximum and symmetrical wave form can be obtained. In this case, the wavehead should be appeared at the center marker (450 kHz) on the scope of Sweeper.
2. FM IF ALIGNMENT (The unit should not usually require adjustment. Follow the steps below when adjustments are necessary).	
2-1 Conditions of the receiver.	
(1) Power source:	Same as mentioned in item 1-1 (1)
(2) Function switch position:	RADIO
(3) Band select switch:	FM
(4) Volume control:	Minimum gain position
(5) SEA control:	Center position
(6) Reception frequency:	Set the reception frequency to the highest position and to the position where the signal does not enter.
2-2 Connection of Sweeper and the receiver	
(1) Tuner input:	Positive side to TP5
(2) Tuner output:	Positive side to TP6 Negative side to TP7
NOTE a) Attach a capacitor (30 pF) and resistor (33 kΩ) to the positive side cable which shall be led from Sweeper output. b) Attach a resistor (100 kΩ) and capacitor (0.082 μF) in series to the positive side cable which shall be led from Sweeper input.	
2-3 Aligning position:	Discriminate Waveform: T1 ("S" curve waveform)
2-4 Alignment (Waveform):  Fig. 3-3  Fig. 3-4	
Note The discriminator's CF is yeloow. Do not use one that is of another color.	Dismount CF3. Then, the shape of the S curve waveform will be changed as indicated in Fig. 3-3. Turn T1 and adjust the peak point so that the point becomes 10.7 MHz with symmetrical waveform. Next, mount the CF3, and adjust the S curve as indicated in Fig. 3-4.

3. AM RF ALIGNMENT

3-1 Conditions of the receiver.	
(1) Power source:	Same as mentioned in item 1-1 (1).
(2) Function switch position:	RADIO
(3) Volume control:	50 mW
(4) SEA control:	Center position
(5) Variable capacitor:	Refer the following list shown in item 3-4.
3-2 Condition of SSG.	
(1) Modulation:	Refer the basic condition
(2) Frequency:	Refer the following list shown in item 3-4.
(3) Output level of the attenuator in SSG:	Approx. 50 mW
3-3 Alignment:	

Step	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Preset channel	Aligning methode	Aligning Position
1	MW	Loop Antenna	1,629 kHz	5 ch	Adjust the voltage of TP-9 to 4.6 V±0.02 V.	L-5
2			603 kHz	2 ch	to be received 603 kHz	L-3
3			1,404 kHz	4 ch	to be received 1,404 kHz	TC-2
4			Adjust the above aligning position (L-3 & TC-2) repeatedly so that the tuner can be obtained the best sensitivity			
5	LW	Loop Antenna	288 kHz	5 ch	Adjust the voltage of TP-9 to 4.5 V±0.02 V.	L-5
6			144 kHz	1 ch	to be received 144 kHz	L-4
7			288 kHz	5 ch	to be received 288 kHz	TC-4
8			Adjust the above aligning position (L-4 & TC-4) repeatedly so that the tuner can be obtained the best sensitivity			

4. FM RF ALIGNMENT

4-1 Conditions of the receiver.	
(1) Power source:	Same as mentioned in item 1-1 (1).
(2) Function switch position:	RADIO
(3) Band select switch:	FM
(4) Volume control:	50 mW
(5) SEA control:	Center position
(6) Reception frequency:	Refer the following list shown in item 4-4.
4-2 Condition of FM SSG.	
(1) Modulation:	Refer the basic condition
(2) Frequency:	Refer the following list shown in item 4-4.
4-3 Connection of sweeper and the receiver.	
(1) Tuner input	Positive side to TP1.
	Negative side to TP2.
(2) Output measuring position	Speaker Terminal
4-4 Alignment:	

Step	Band Select Switch Position	Sort of Antenna to be attached to SSG	Frequency of SSG	Preset channel	Aligning methode	Aligning Position
1	FM	75 Ω Unbalanced	108 MHz	5 ch	Adjust the voltage of TP-9 to 4.4 V±0.02 V.	L-1
2			88 MHz	2 ch	to be received 88 kHz	L-2
3			106 kHz	4 ch	to be received 106 MHz	TC-1
4			Repeatedly adjust 2 and 3 so that the output become maximum.			

■ Cassette Section

• Location of Cassette Adjustment

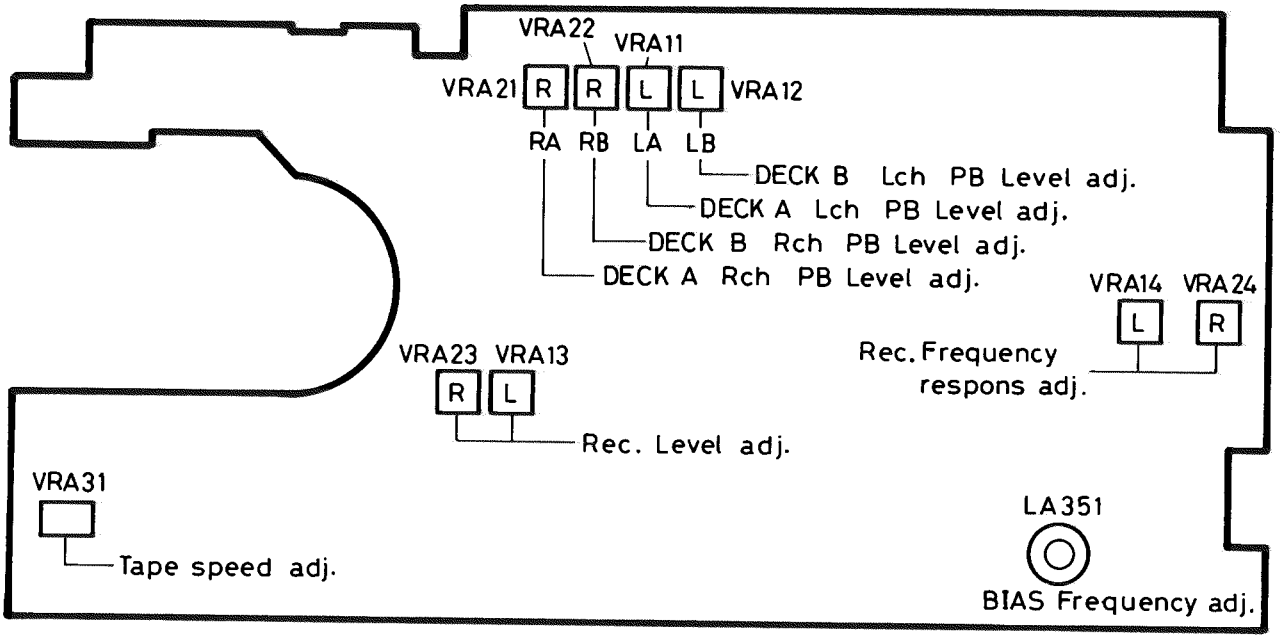


Fig. 3-5

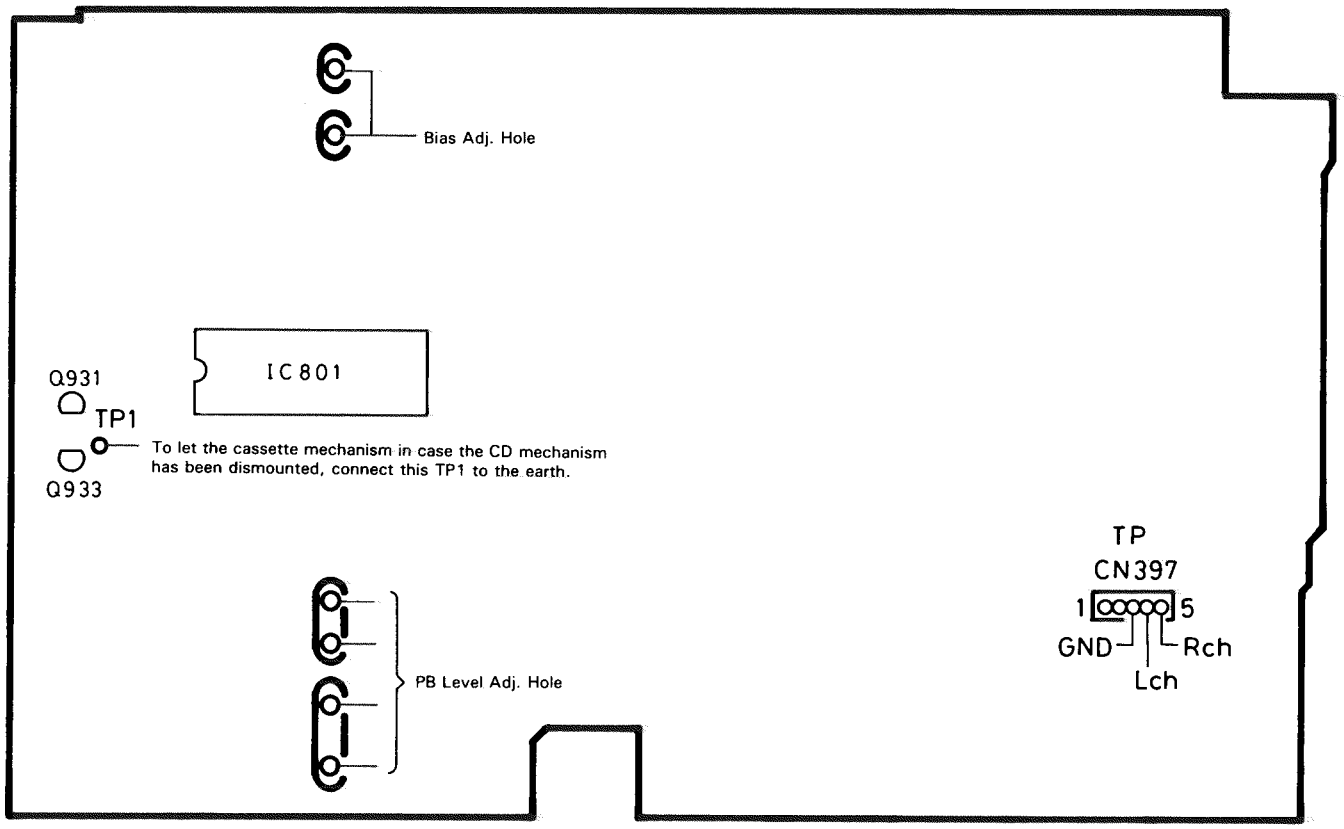


Fig. 3-6

■ Mechanism and Amplifier Sections

(In case the CD unit is dismounted, connect TP1 of the function board to the earth).

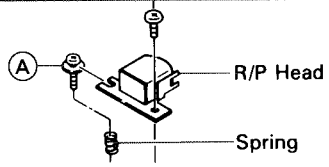
<table>
<tr><th>Item</th><th>Measuring Conditions and Main Adjustments</th><th>Standard Value</th><th>Adjust</th></tr>
<tr><td>Head azimuth adjustment</td><td><Conditions>
1. Mode : PLAY
2. Test tape : VTT703 (10 kHz)
3. Measuring point : Speaker terminal
<Adjustment>
1. Connect an electronic voltmeter to the speaker terminal.
2. Playback the test tape VTT703.
3. Adjust the head azimuth with screw Ⓐ (Fig. 3-4) until the reading of the electronic voltmeter becomes maximum. At this time, the phase difference should be minimum.</td><td> 

Fig. 3-7
Maximum Point</td><td>Left side screw of A or B mechanism</td></tr>
<tr><td>Tape speed and wow-flutter adjustment</td><td><Conditions>
1. Mode : PLAY, Normal speed
2. Test type: Perorm this test near VTT712 at the tape end.
3. measuring point : Speaker terminal
<Confirmation>
1. Connect a wow-flutter and F. counter meter to speaker terminal.
2. Playback the test tape VTT712 at tape end.
3. Adjust VRA31 in the pre amp. board so that is obtained within 2950 ~ 3050 Hz at normal speed.
4. Check to see if reading of the meter is less than 0.35% (JIS RMS).</td><td>Normal Speed
: 2950 ~ 3050 Hz

High speed
: 5100 ~ 5900 Hz

Wow-flutter
: less than 0.35%
(JIS RMS)</td><td>Tape speed
VRA31</td></tr>
<tr><td>Playback output level adjustment</td><td><Conditions>
1. Measuring tape: VTT724 (1 kHz)
2. Measuring point: Speaker terminal
<Adjustment>
1. Playback the test tape VTT724 (at 1 kHz) and adjust Lch: VRA11 and Rch: VRA21 of deck A so that output of TP (speaker terminal) becomes dB. Also adjust Lch: VRA12 and Rch: VR422 of Deck B same as Deck A.</td><td>– dB ±1 dB</td><td>Deck A
Lch: VRA11
Rch: VRA21
Deck B
Lch: VRA12
Rch: VRA22</td></tr>
<tr><td>Playback frequency response confirmation</td><td><Conditions>
Test tape : VTT739
Mode : PLAY
Measuring point : Speaker terminal
<Confirmation>
Playback the test tape VTT739 difference level against 1 kHz.
1 kHz/63 Hz : 2±4 dB
1 kHz/10 kHz : 0±3 dB</td><td>1 kHz/63 Hz
: –2±3 dB
1 kHz/10 kHz
: 0±3 dB</td><td>–</td></tr>
<tr><td>Bias frequency adjustment</td><td><Conditions>
1. Measuring point: Speaker terminal
2. Mode: REC/PAUSE

<table><tr><th>Beat Cut Switch</th><th>Bias frequency</th></tr><tr><td>1 (Normal)</td><td>68±0.5 kHz</td></tr><tr><td>2</td><td>67.1±1 kHz</td></tr><tr><td>3</td><td>69.5 kHz</td></tr></table>
<Adjustment>
Adjust L301 so that standard value is 68±0.5 kHz while in RECORD/PAUSE mode.</td><td></td><td>L301</td></tr>
<tr><td>REC/Playback frequency characteristics adjustment</td><td><Conditions>
1. Measuring input: CN397
2. Measuring point: Speaker terminal.
<Adjustment>
Input 1 kHz REF. – 20 dB (– 28 dB) signal into CN397. When recording this signal onto the tape and playing it back, adjust Lch: VRA14 and Rch: VRA24 so that the output level is 0±1 dB at the 10 kHz point.</td><td>0±1 dB at
10 kHz</td><td>Lch : VRA14
Rch : VRA24</td></tr>
</table>

Item	Measuring Conditions and Main Adjustments	Standard Value	Adjusting Point
REC/Playback sensitivity adjustment	<Conditions> 1. Measuring input: CN397 2. Measuring point: Speaker terminal <Adjustment> Input 1 kHz (REF −8 dBs) signal into CD OUT. When recording this signal onto the tape and playing it back, adjust Lch: VRA13 and Rch: VRA23 of Deck A so that the output level is 0±1 dB.	0 ±1 dB	Deck A Lch: VRA13 Rch: VRA23
Confirmation of ALC	<Condition> Measuring input: CN397 output: Speaker terminal <Confirmation> When the [Comformation] input level has been changed from −8 dBs to +2 dB, the recording and replaying output deviations should be within 6 dB.	With 6 dB	—
Checking record/playback distortion	1) Record a 1 kHz, −20 dBS signal to CN397 terminals. 2) Play back the recorded part. Check the output with a distortion meter to see if the value conforms to the standard value.	Normal tape: Less than 5%	Be sure to perform this checking following bias current and recording level checking.
Checking signal to noise ratio in recording/playback	1) Record a 1 kHz, −20 dBs signal. Stop the input by disconnecting from the terminal (CN397) to perform non-signal recording. 2) Play back the recorded part. Measure the −8 dBs recording output and the non-signal recording output for comparison using an electronic voltmeter. Check to see if the value conforms to the standard value.	More than 37 dB	

■ CD Section

• Location of Adjustment

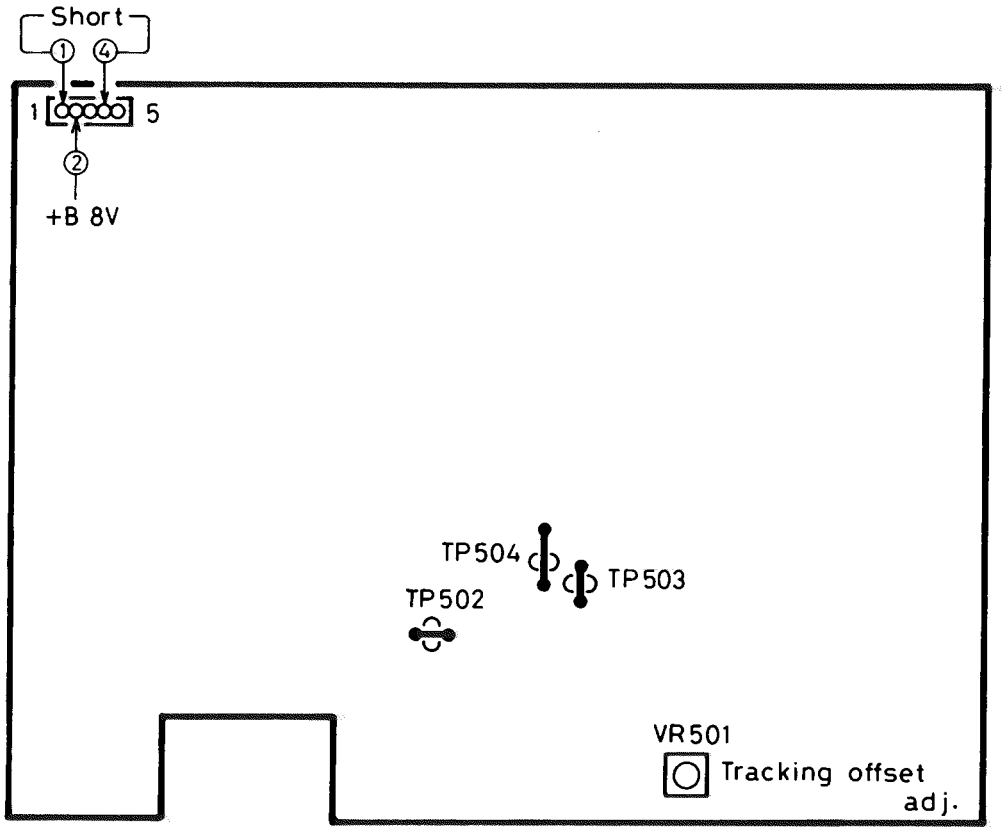
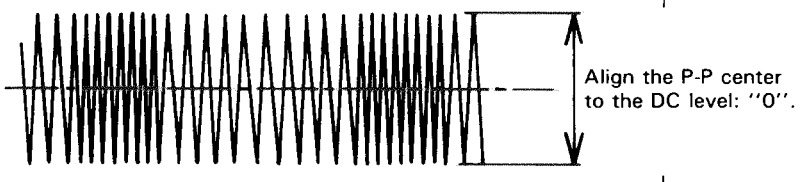


Fig. 3-8

■ Adjust of CD Player Section

Caution:

1. In the case of PC-XT5, the cassette mechanism will not work when the CD unit has been dismounted from the main assembly. To let the cassette mechanism work, connect TP1 of the function board assembly to GND.

Items	Devices Used	Adjustment Method	Adjusting Position
Adjustment of tracking offset	Normal disk oscilloscope	1. Connect the oscilloscope between TP502 (VREF) nd TP503 (TE). 2. Connect the terminal (1) and (4) of FW501 and apply 10 V to the terminal (2) of FW501. 3. Replay (Regenerate) the normal disk. 4. Connect TP504 and TP502 (for shorting). 5. Adjust (the tracking offset waveform with) VR501 so that the DC level of tracking error signal (waveform of oscilloscope) becomes zero. Waveform of tracking offset  **Notes** 1. Adjust VR501 so that the waveform becomes vertically symmetrical with reference to the zero level. 2. The oscilloscope input should be coupled to DC.	VR501

4 Block Diagram

Receiver Section

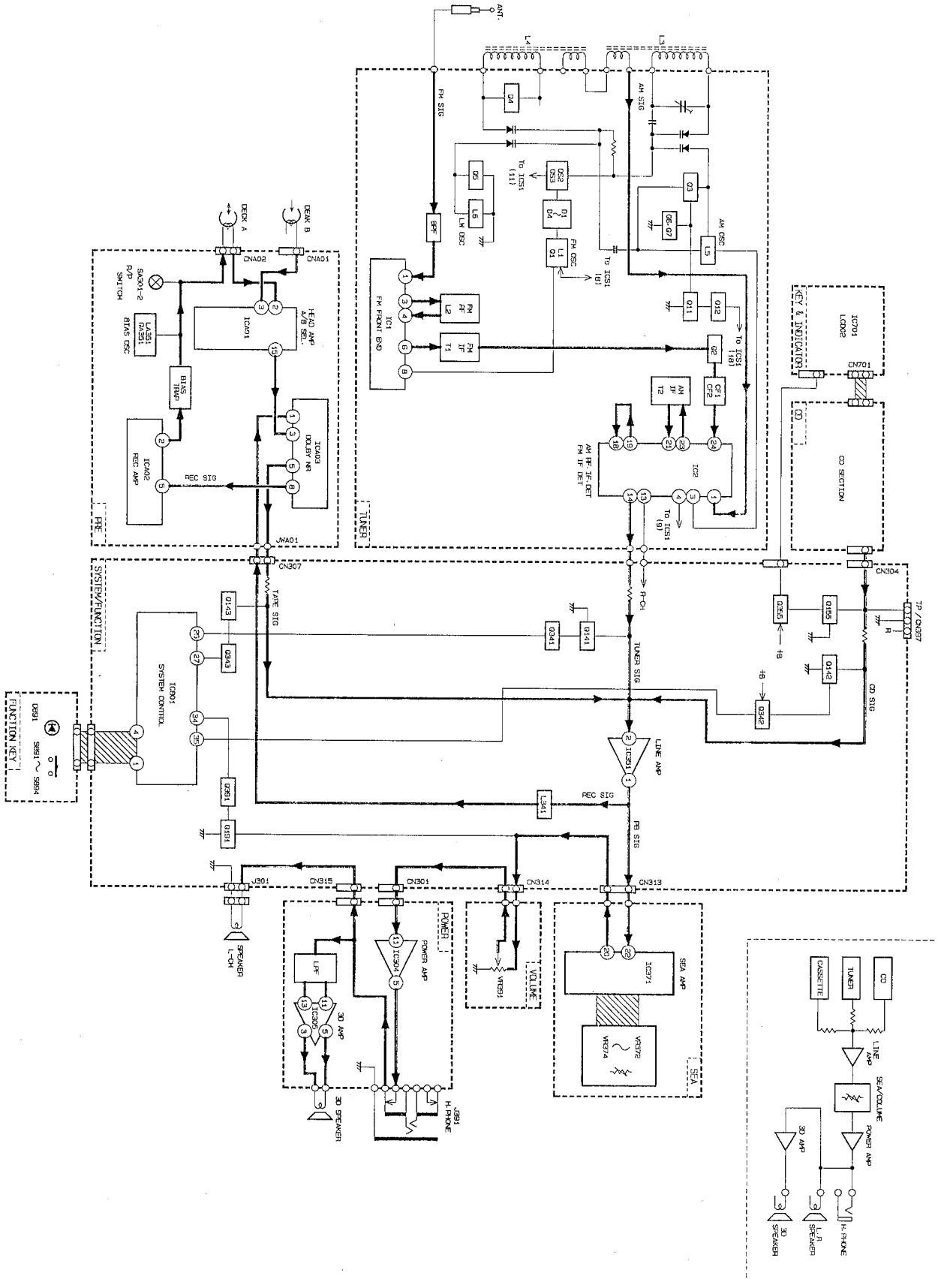


Fig. 4-1

■ CD Section

• Basic Diagram

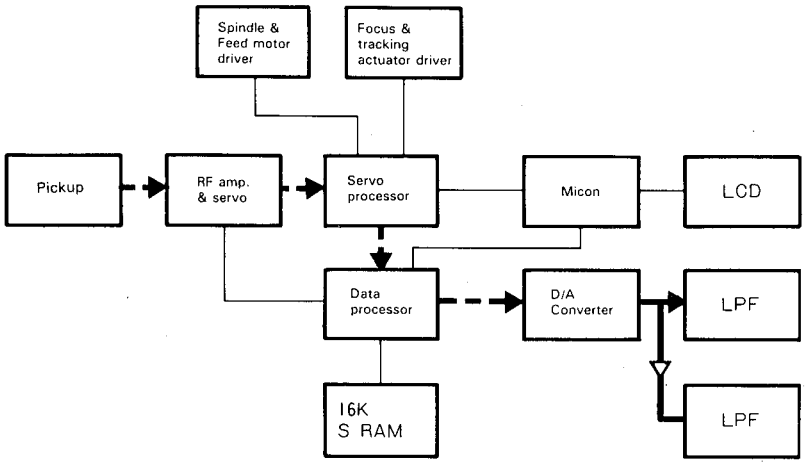


Fig. 4-2

• Signal Diagram

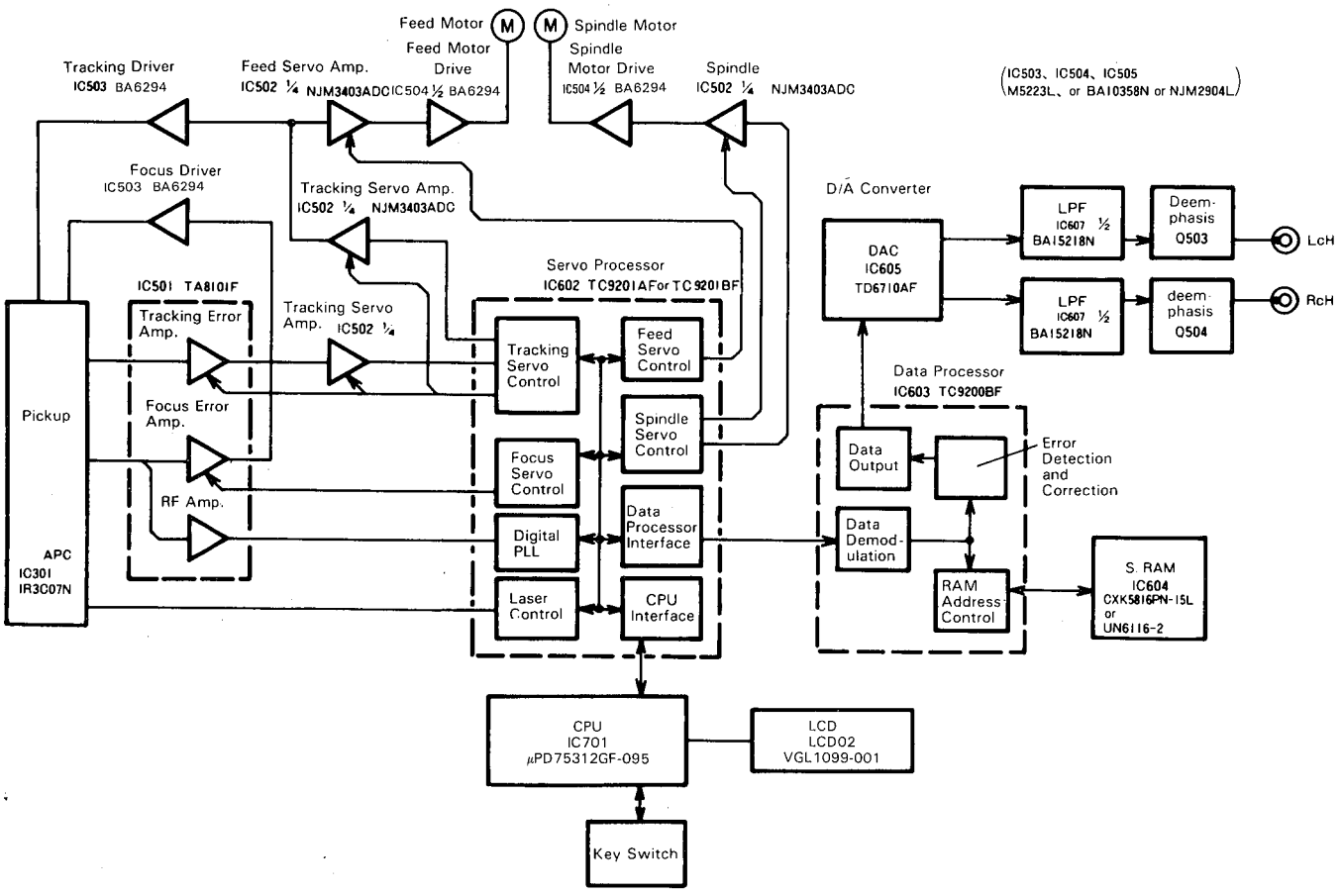


Fig. 4-3

5 Standard Schematic Diagram and Location of

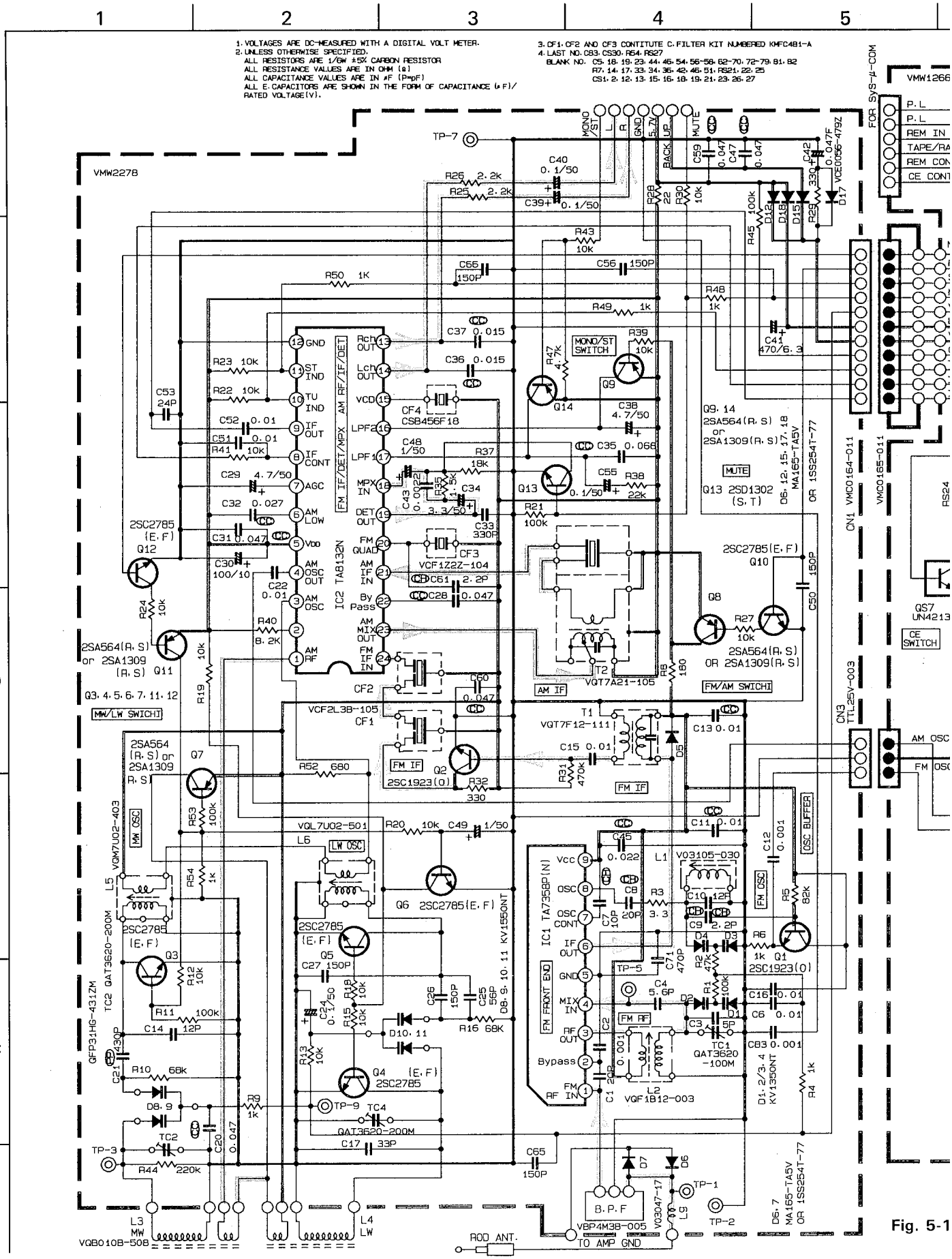
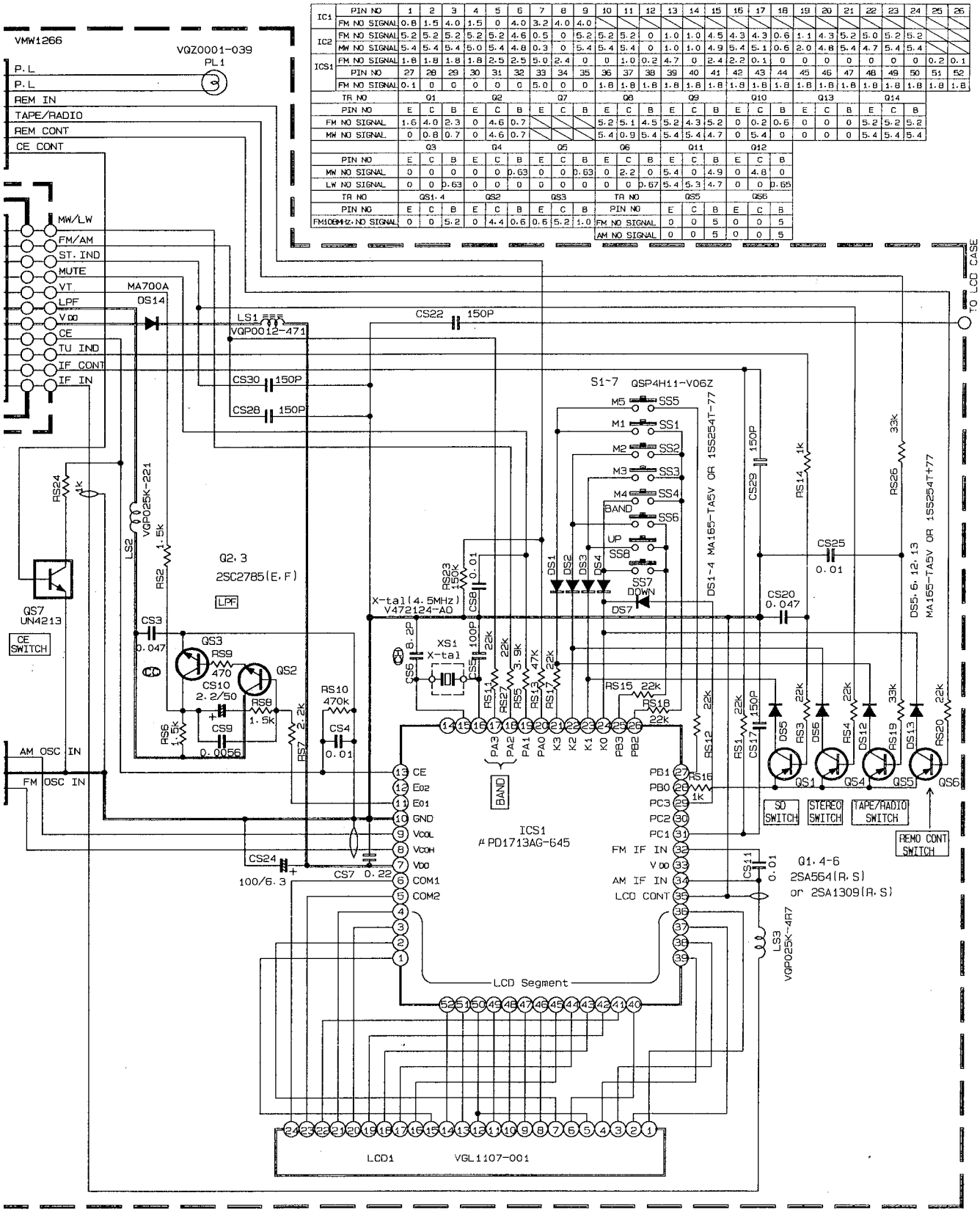


Fig. 5-1

# of P.C. Board ■ Tuner/DTS Circuit

6 | 7 | 8 | 9 | 10



	PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
IC1	FM NO SIGNAL	0.8	1.5	4.0	1.5	0	4.0	3.2	4.0	4.0																	
IC2	FM NO SIGNAL	5.2	5.2	5.2	5.2	5.2	4.6	0.5	0	5.2	5.2	5.2	0	1.0	1.0	4.5	4.3	4.3	0.6	1.1	4.3	5.2	5.0	5.2	5.2		
	MW NO SIGNAL	5.4	5.4	5.4	5.0	5.4	4.8	0.3	0	5.4	5.4	5.4	0	1.0	1.0	4.9	5.4	5.1	0.6	2.0	4.8	5.4	4.7	5.4	5.4		
ICS1	FM NO SIGNAL	1.8	1.8	1.8	1.8	2.5	2.5	5.0	2.4	0	0	1.0	0.2	4.7	0	2.4	2.2	0.1	0	0	0	0	0	0	0	0.2	0.1
	PIN NO	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
	FM NO SIGNAL	0.1	0	0	0	0	0	5.0	0	0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

TR NO	Q1			Q2			Q7			Q8			Q9			Q10			Q13			Q14		
PIN NO	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
FM NO SIGNAL	1.6	4.0	2.3	0	4.6	0.7				5.2	5.1	4.5	5.2	4.3	5.2	0	0.2	0.6	0	0	0	5.2	5.2	5.2
MW NO SIGNAL	0	0.8	0.7	0	4.6	0.7				5.4	0.9	5.4	5.4	5.4	4.7	0	5.4	0	0	0	0	5.4	5.4	5.4

	Q3			Q4			Q5			Q6			Q11			Q12		
PIN NO	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
MW NO SIGNAL	0	0	0	0	0	0.63	0	0	0.63	0	2.2	0	5.4	0	4.9	0	4.8	0
LW NO SIGNAL	0	0	0.63	0	0	0	0	0	0	0	0	0.67	5.4	5.3	4.7	0	0	0.65

TR NO	QS1.4			QS2			QS3			TR NO	QS5			QS6		
PIN NO	E	C	B	E	C	B	E	C	B	PIN NO	E	C	B	E	C	B
FM10.8MHz NO SIGNAL	0	0	5.2	0	4.4	0.6	0.6	5.2	1.0	FM NO SIGNAL	0	0	5	0	0	5
										AM NO SIGNAL	0	0	5	0	0	5

Fig. 5-1

■ Tuner Board

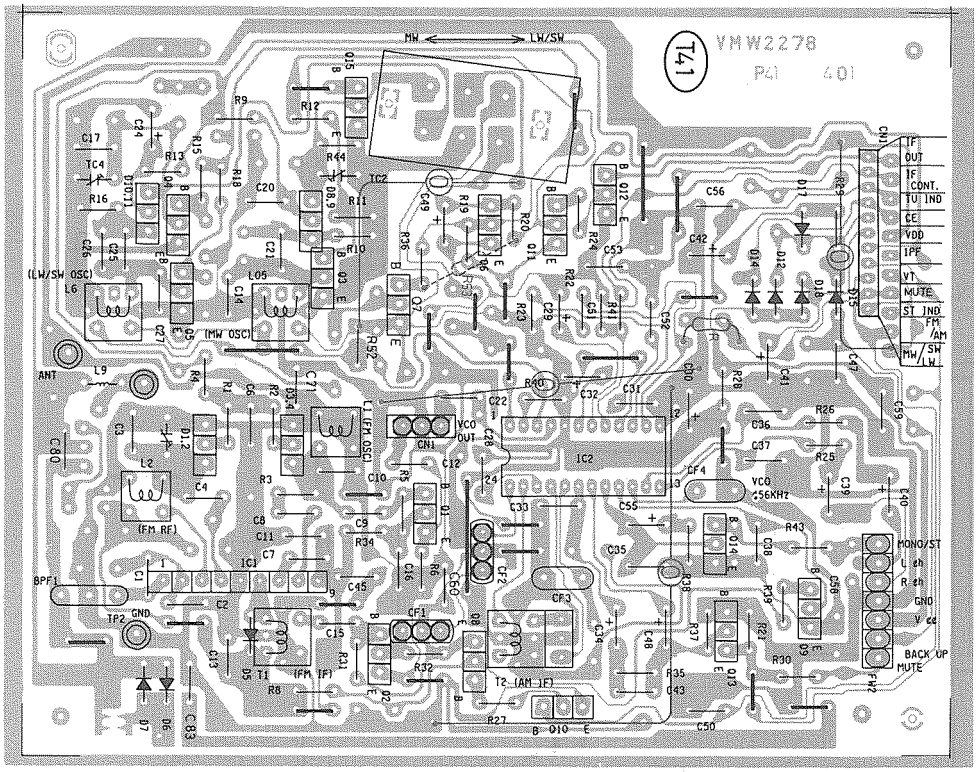


Fig. 5-2

■ DTS Board

6	7	8	9	10

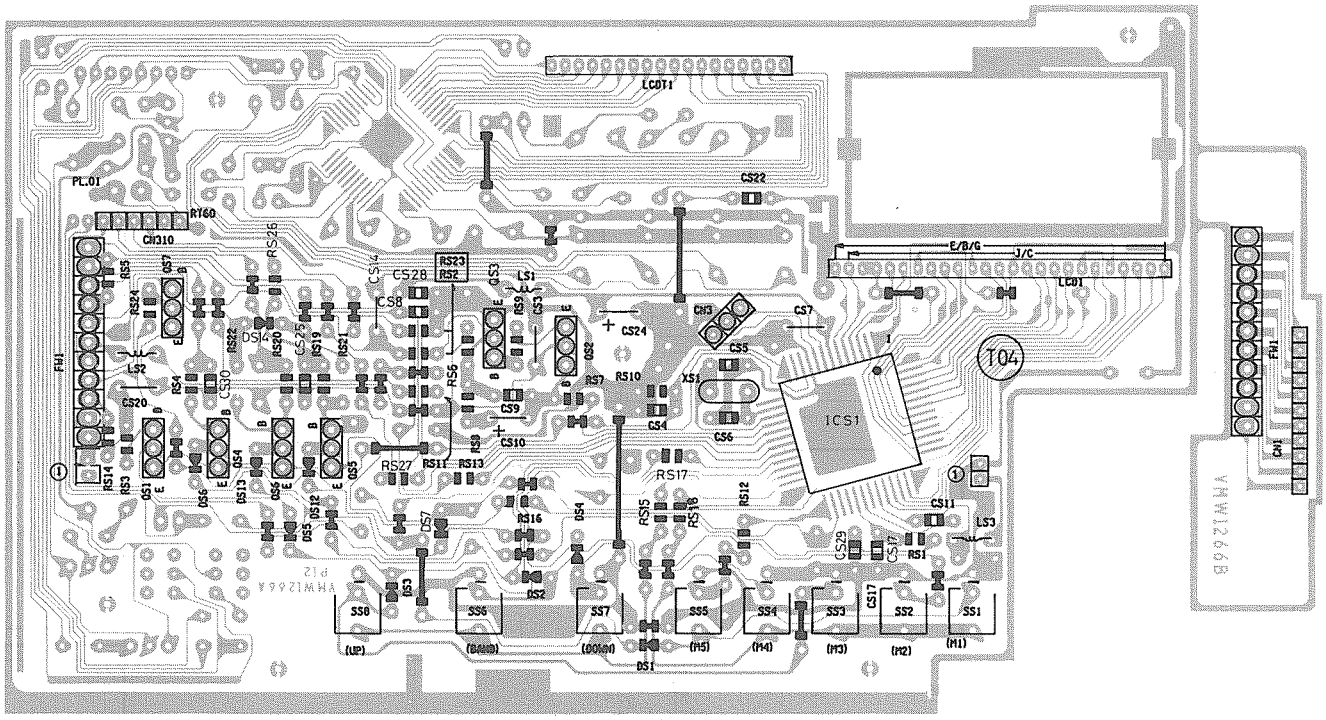
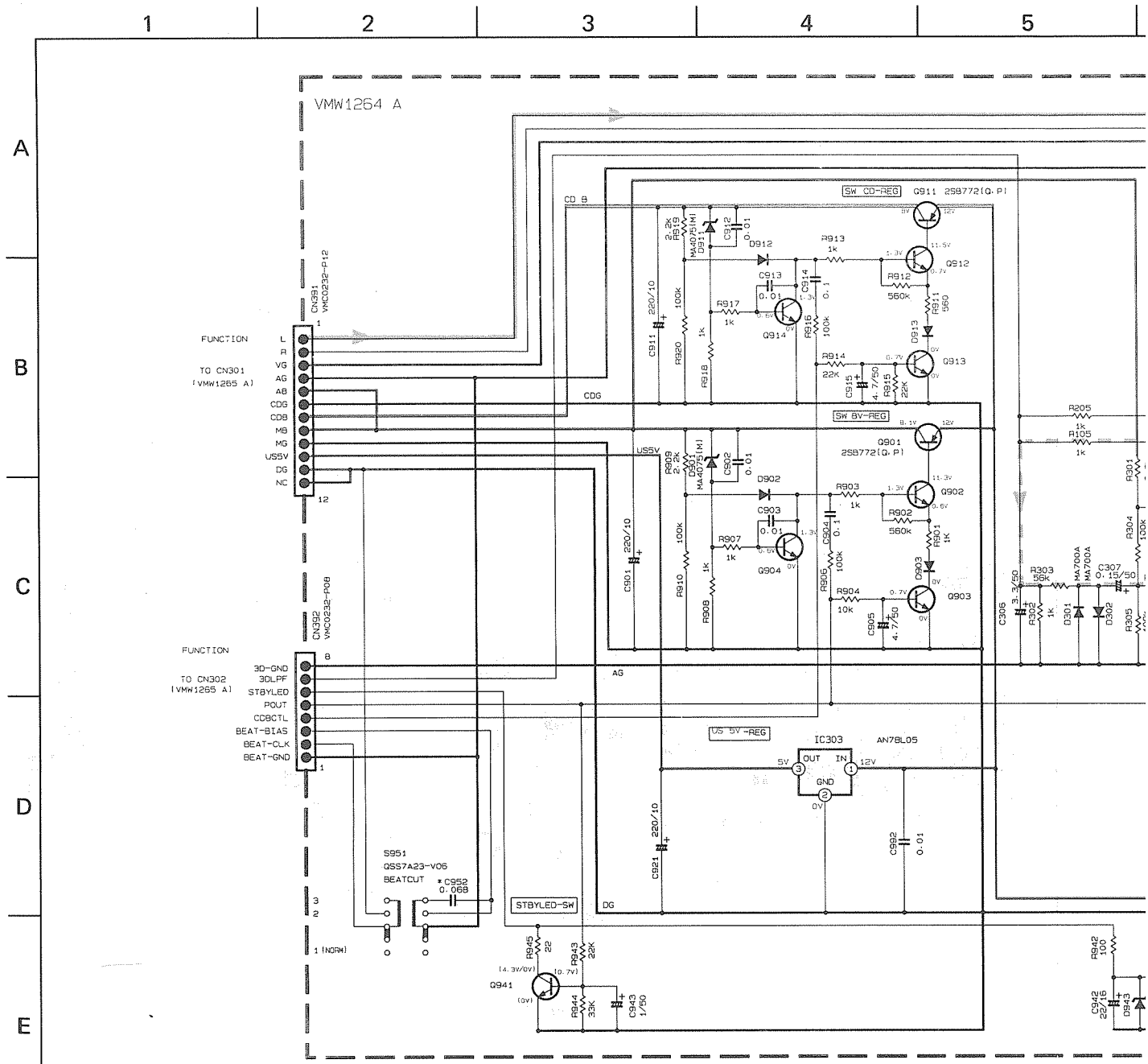


Fig. 5-3

■ Power Amplifier Circuit



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION --- TAPE MODE A MECHA PLAY
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
   ALL DIODES ARE MA165 OR 1SS133T
   ALL NPN TRANSISTORS ARE 2SC1685(R,S) OR 2SC3311(R,S)
   ALL PNP TRANSISTORS ARE 2SB772(Q,P)

(Ⓒ) UNFLAMMABLE CARBON RESISTOR
(Ⓜ) METAL FILM RESISTOR
(Ⓞ) OXIDE METAL FILM RESISTOR
(Ⓛ) ±20% LOW LEAK CURRENT ELECTROLYTIC CAPACITOR
(Ⓝ) NON-POLARISED ELECTROLYTIC CAPACITOR
(Ⓟ) POLYPROPYLENE CAPACITOR
(Ⓢ) POLYSTYROL CAPACITOR

TABLE 1

REF \ MODEL	
F996	NO US
F997	NO US
F998	QMF00
F999	QMF51
T999	VTP57
J999	QMC03
J998	NO US
D995	NO US
B128	USE
C952	NO US
POWER CORD	QMP12

Fig. 5-4

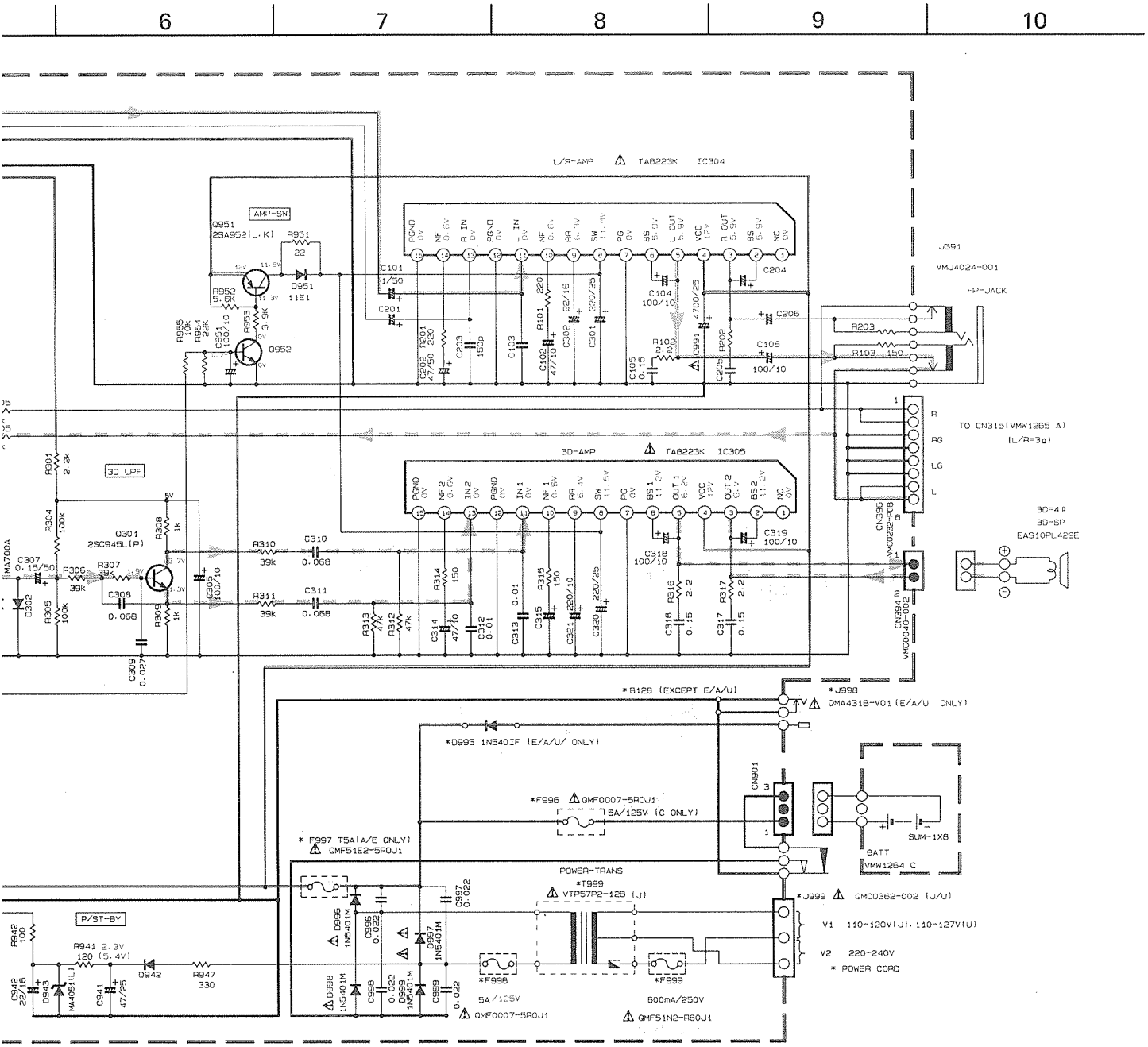
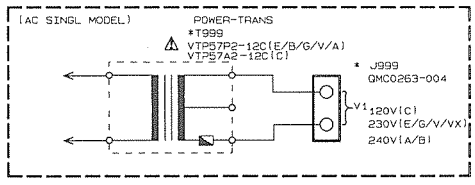


TABLE 1 * MARK PARTS LIST

MODEL	J	C	U	A	E	G/V/VX/(B)
96	NO USE	QMF0007-5R0J1	NO USE	NO USE	NO USE	NO USE
97	NO USE	NO USE	NO USE	QMF51E2-5R0J1	QMF51E2-5R0J1	NO USE
98	QMF0007-5R0J1	QMF0007-5R0J1	QMF0007-5R0J1	QMF51E2-5R0J1	QMF51E2-5R0J1	QMF51E2-5R0J1(BS)
99	QMF51N2-R60J1	NO USE	QMF51N2-R60J1	NO USE	NO USE	NO USE
99	VTP57P2-12B	VTP57A2-12C	VTP57P2-12H	VTP57P2-12C	VTP57P2-12C	VTP57P2-12C(BS)
99	QMC0362-002	QMC0263-004	QMC0362-002	QMC0263-004	QMC0263-004	QMC0263-004(BS)
98	NO USE	NO USE	USE	USE	USE	NO USE
95	NO USE	NO USE	USE	USE	USE	NO USE
28	USE	USE	NO USE	NO USE	NO USE	USE
52	NO USE	NO USE	NO USE	USE	USE	USE
WER RD	QMP1230-183	QMP1930-183	QMP7350-150	QMP2530-183	QMP3950-183	QMP3950-183 QMP5510-183(BS)



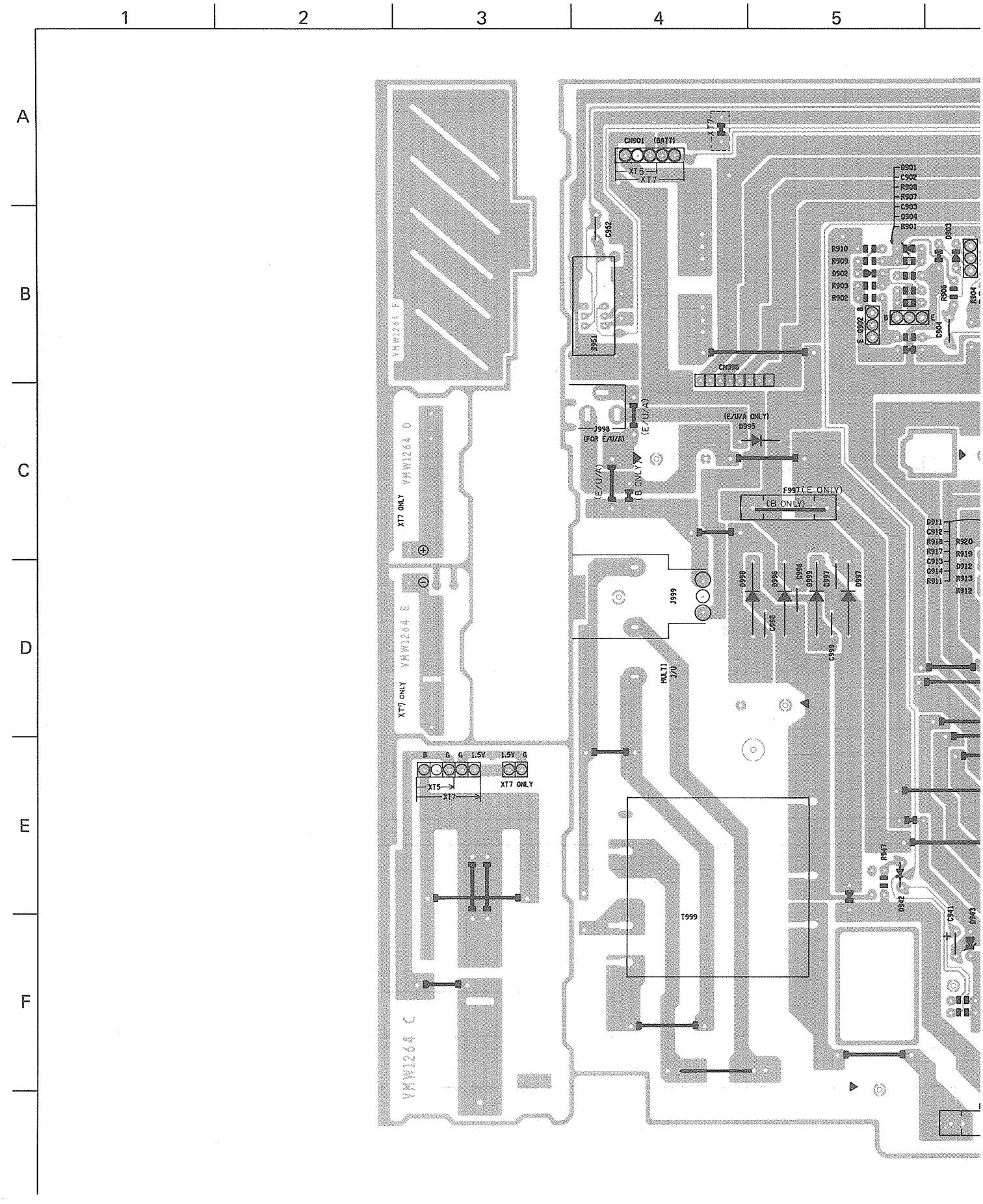
+B Line

Radio & Tape Signal

3D Signal

⚠ parts are safety assurance parts.
When replacing those parts, make sure to use the specified one.

■ Power Amplifier Board



6 | 7 | 8 | 9 | 10

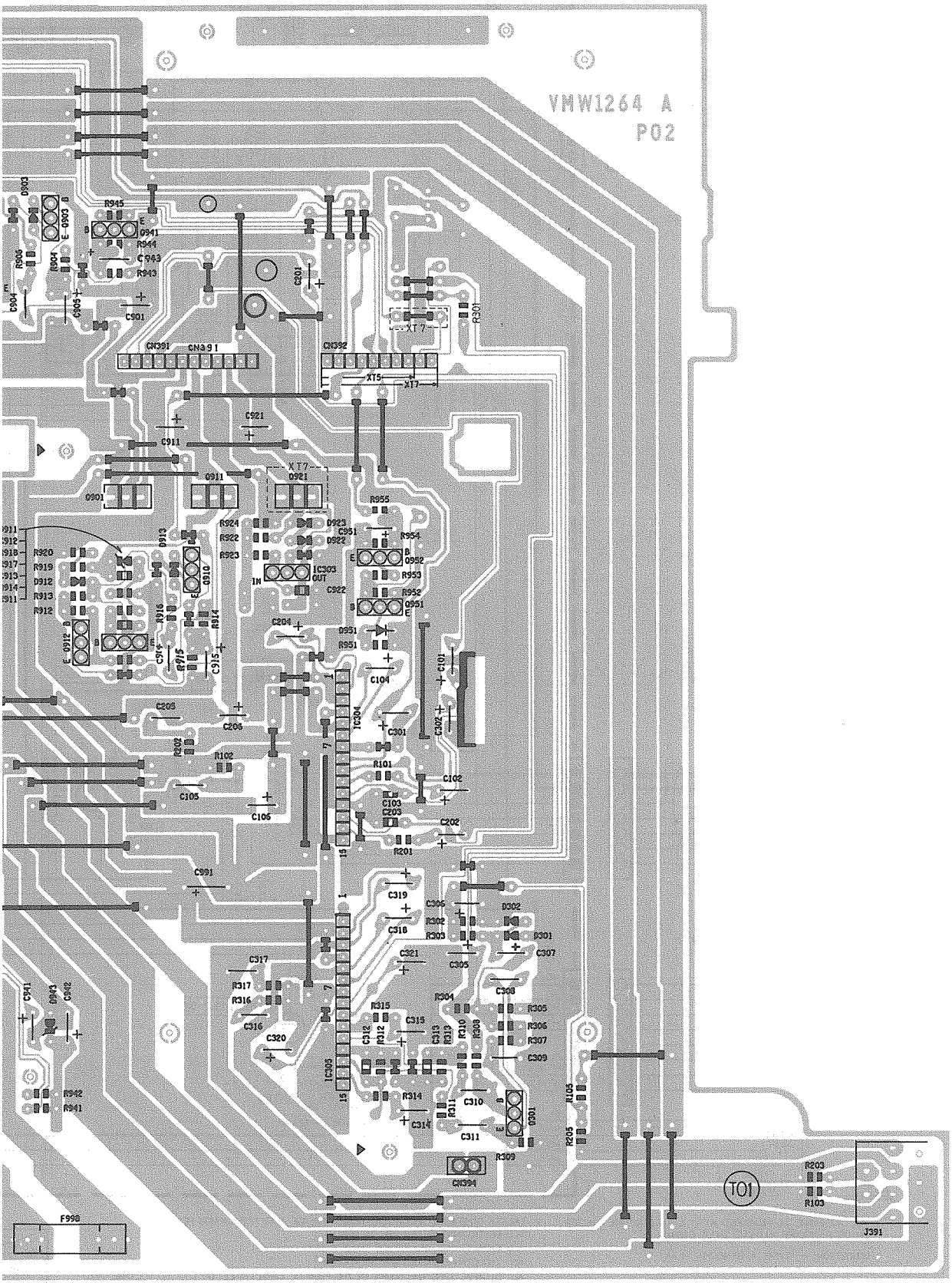
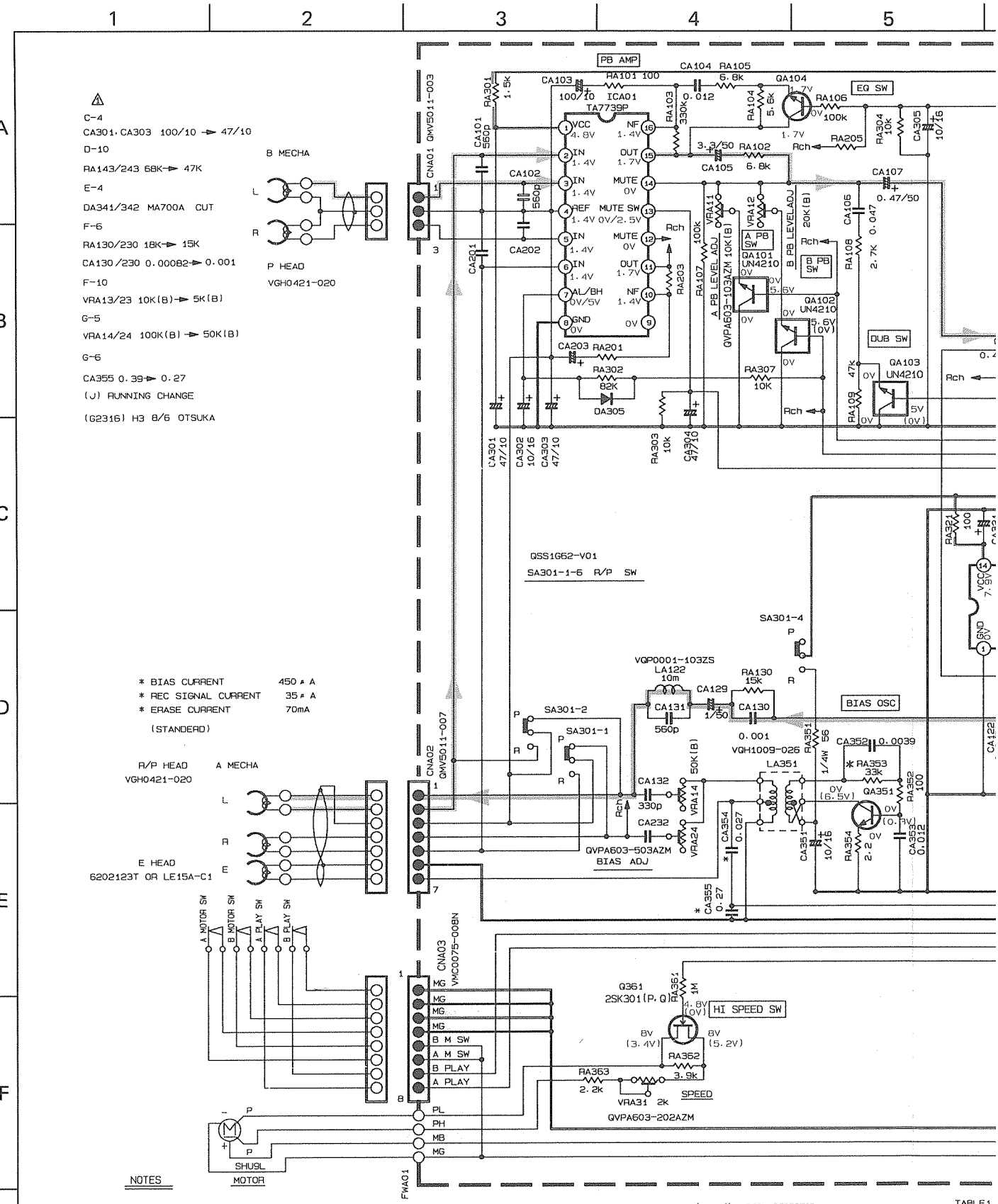


Fig. 5-5

■ Power Amplifier Circuit



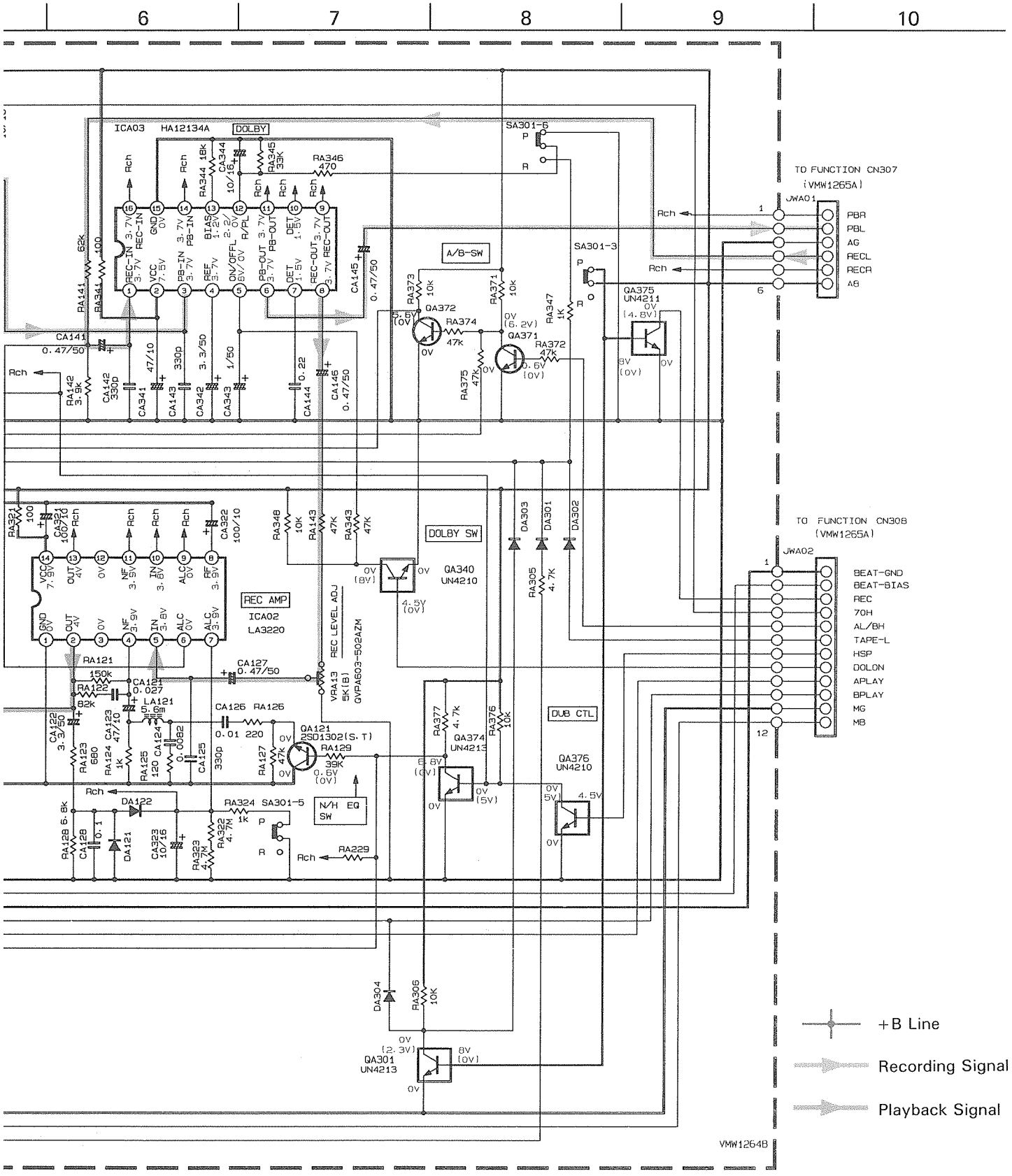


TABLE1 * MARK PARTS LIST

MODEL / NO	J/C/U	A/B/E/G/V/VX
4	0.027	0.033
5	0.27	0.15
3	33K	39K

UN4210 UN4211 UN4213

Fig. 5-6

■ Pre Amplifier Board

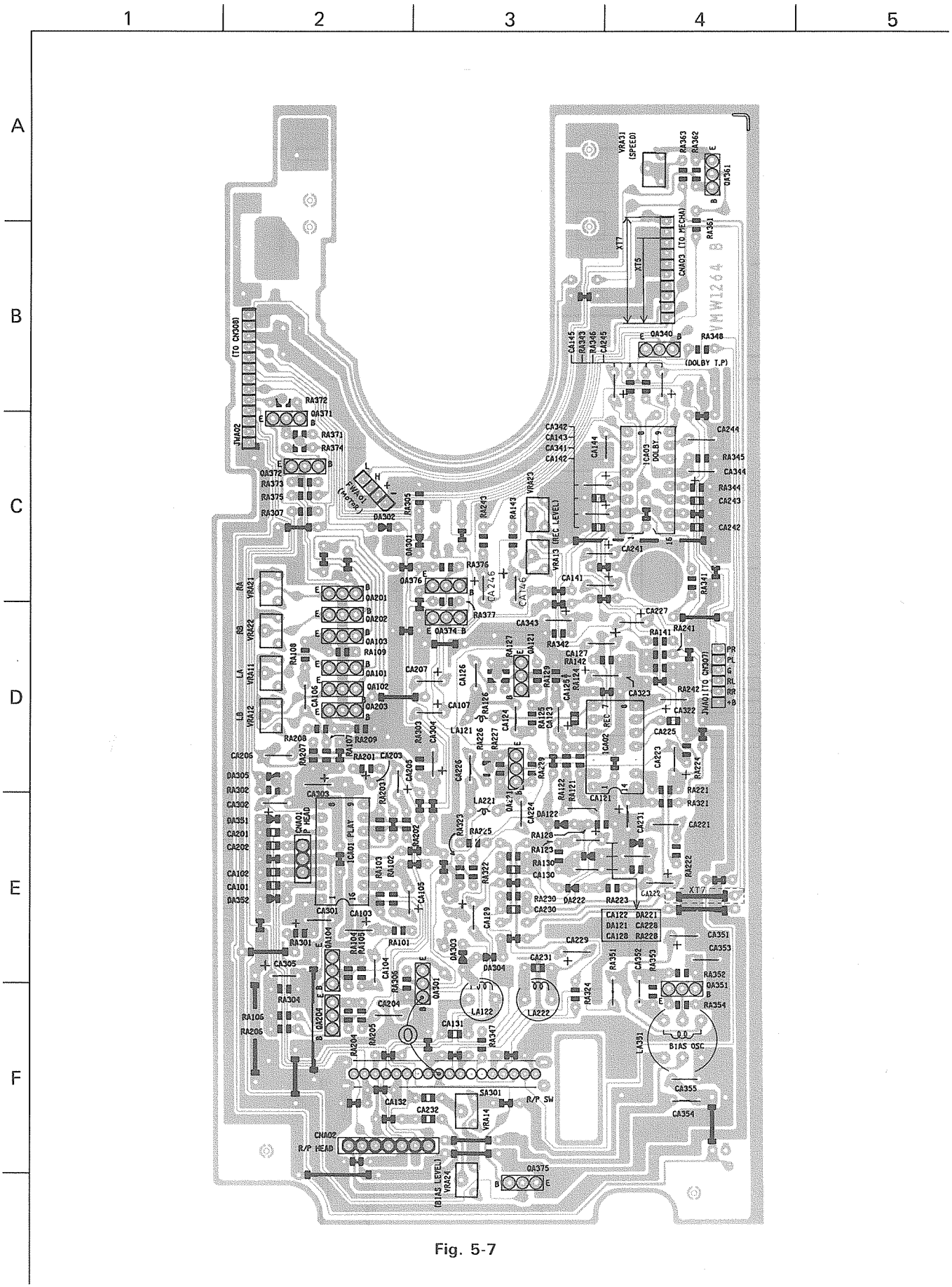


Fig. 5-7

CD Control Circuit

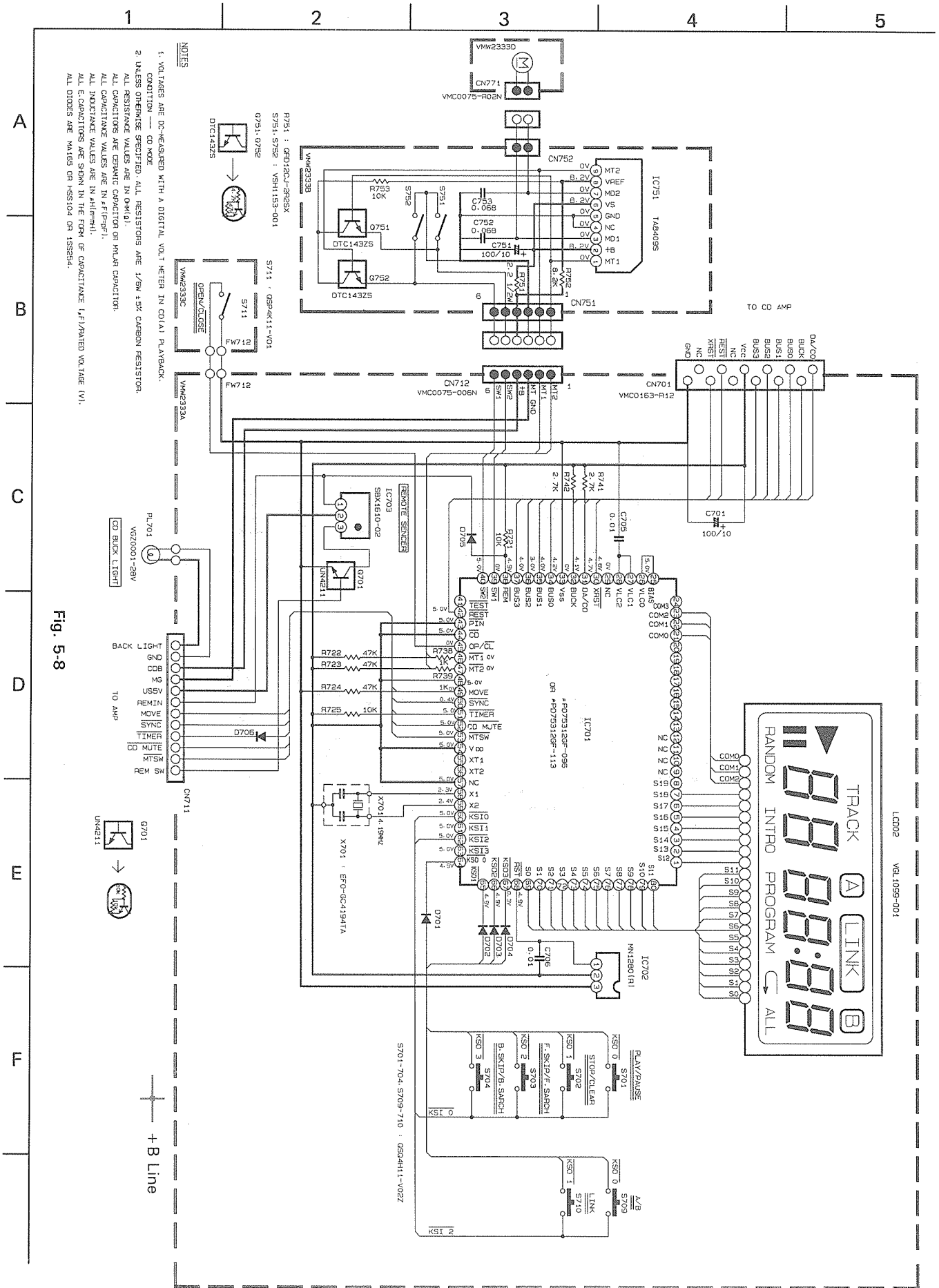


Fig. 5-8

■ CD Control Board

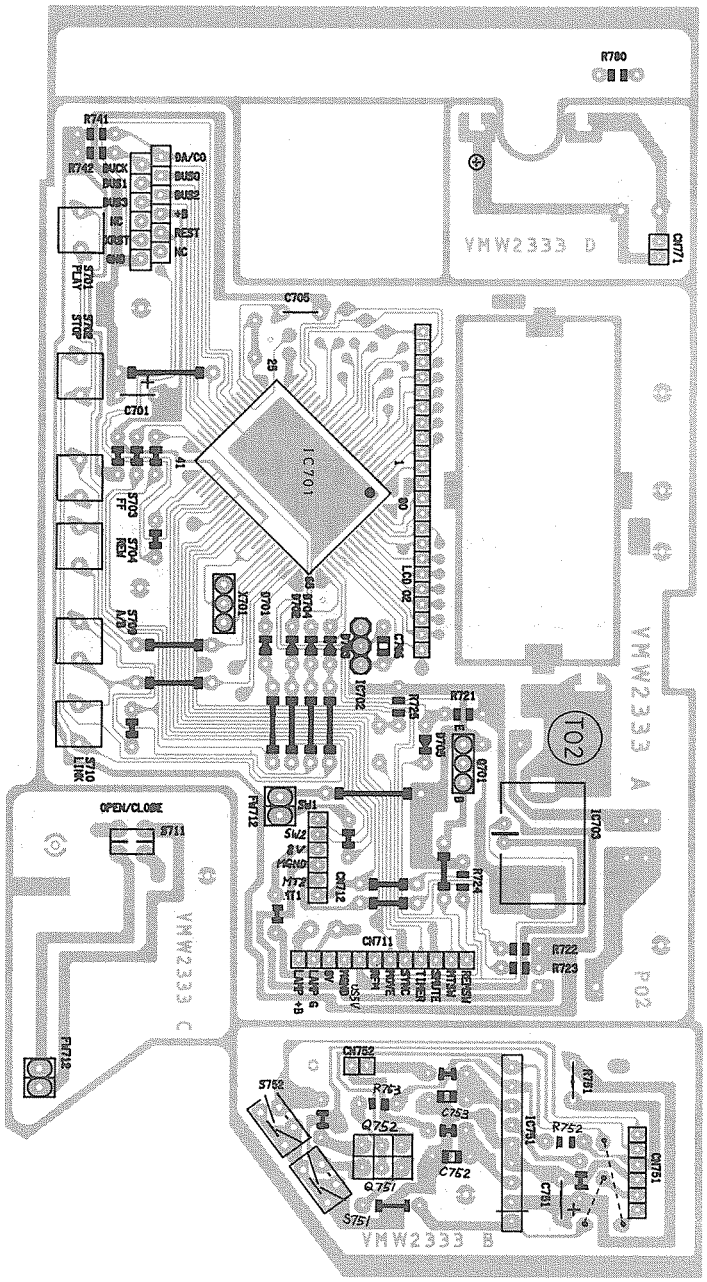


Fig. 5-9

■ CD Amplifier Board

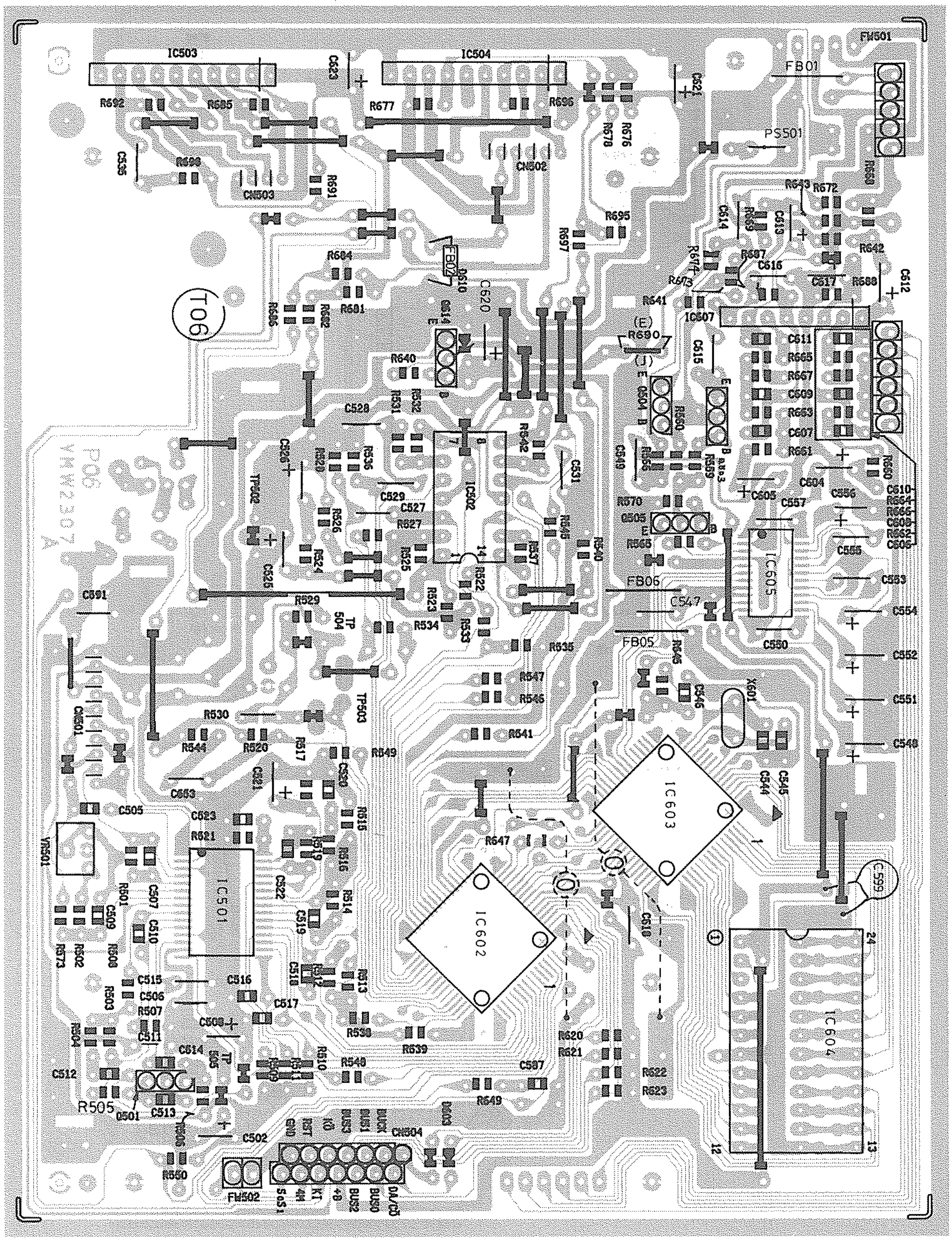
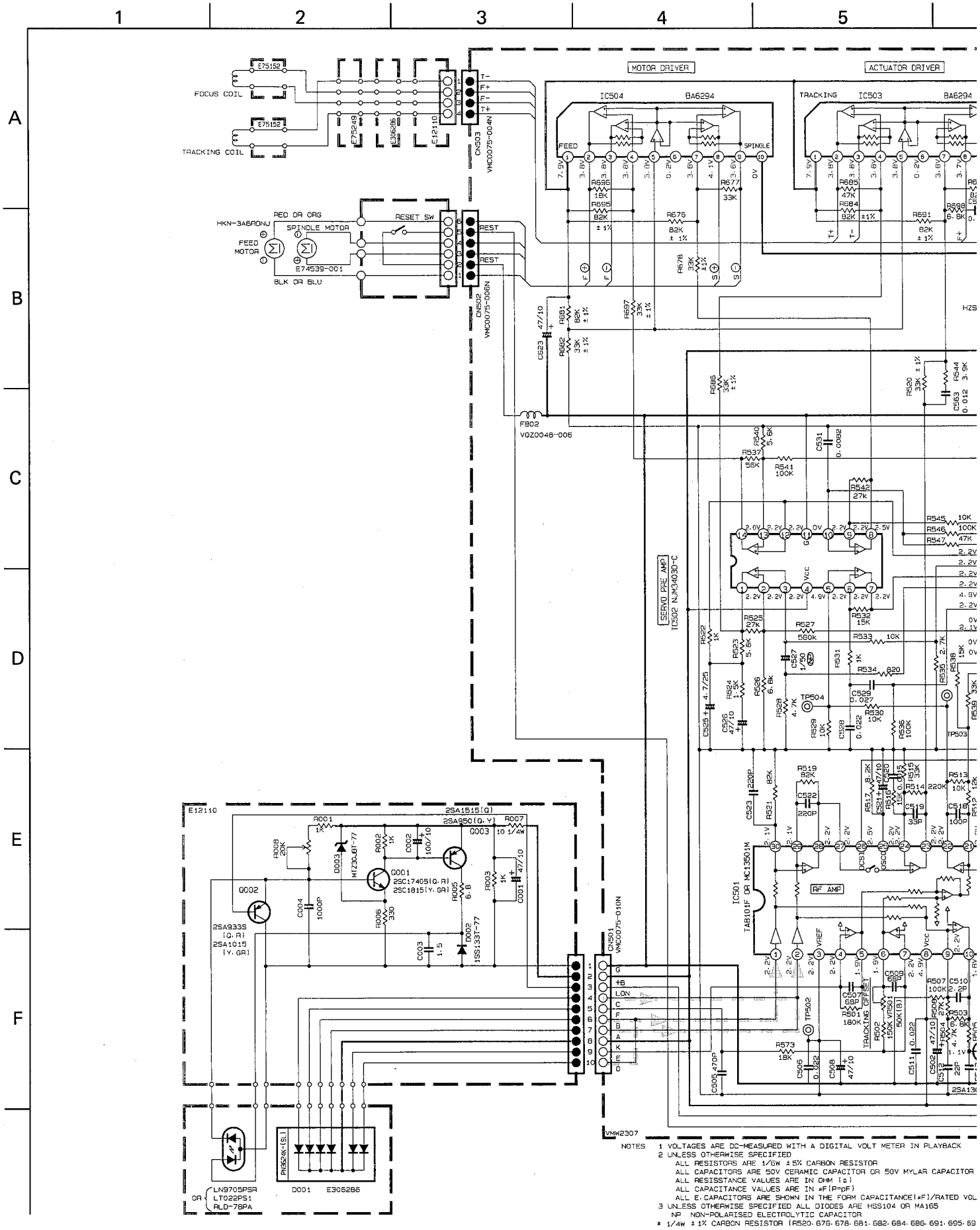

IC503
IC504
C623
C621
FW501
FB01
PS501
CN502
CN503
FB02
T06
C620
IC507
R690
Q504
Q505
IC502
IC605
FB06
C547
FB05
X601
IC603
IC602
IC604
C599
CN501
VR501
IC501
R505
Q501
C502
CN504
FW502
P06
VMW2307
A
GND
RST
KO
BUS3
BUS1
BUCK
S&S1
4M
KI
+B
BUS2
BUS0
DA/CS

Fig. 5-10

■ CD Amplifier Circuit



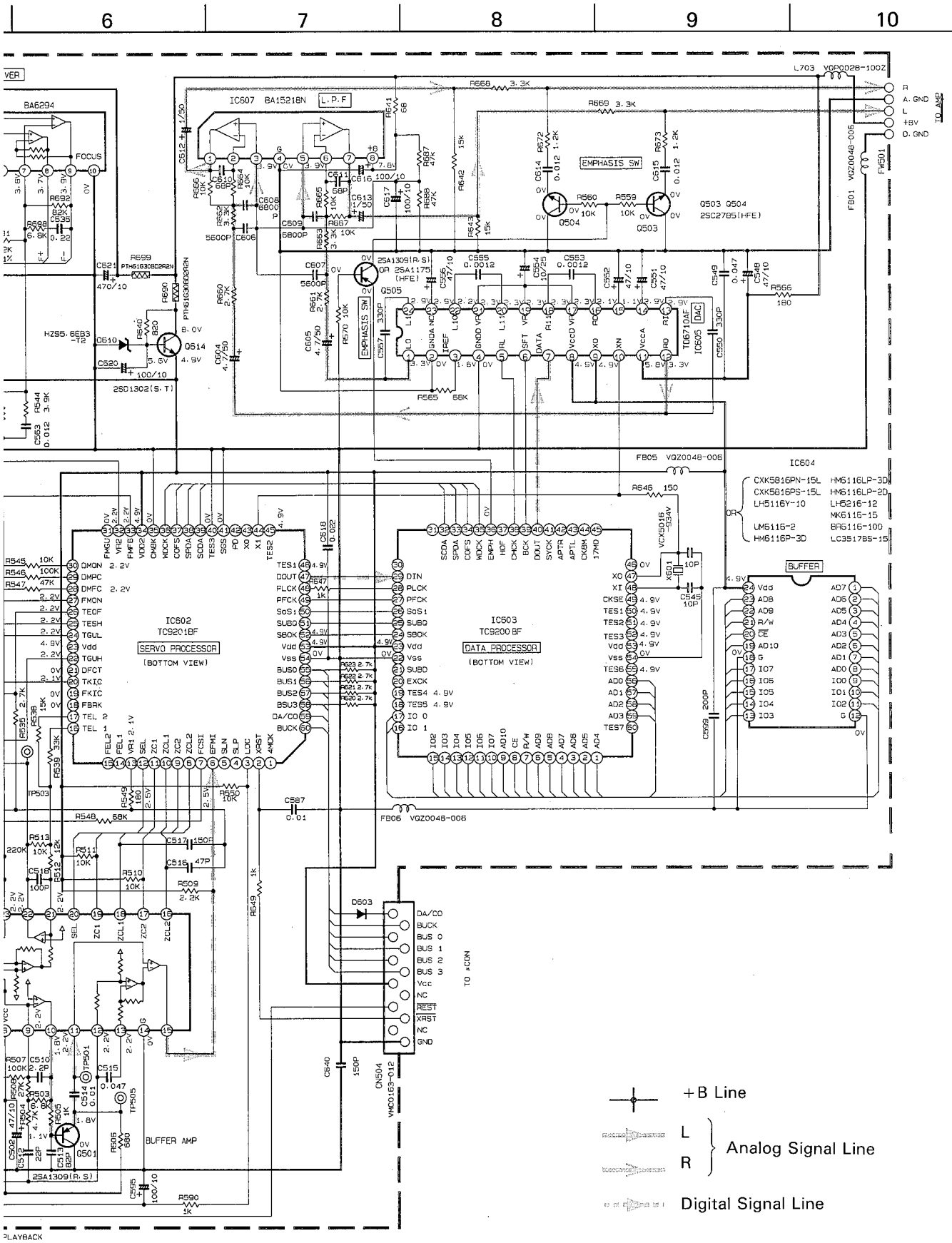
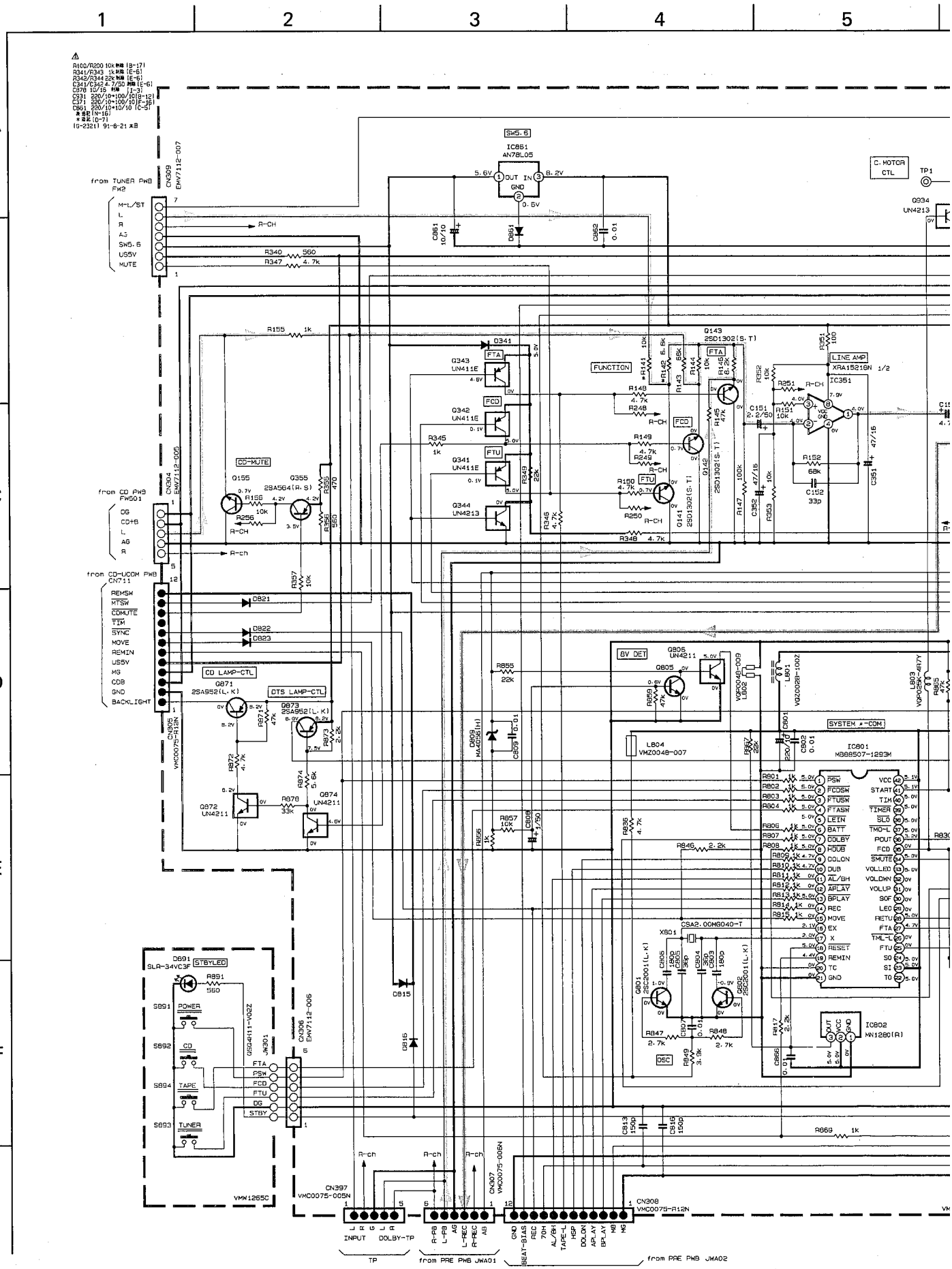
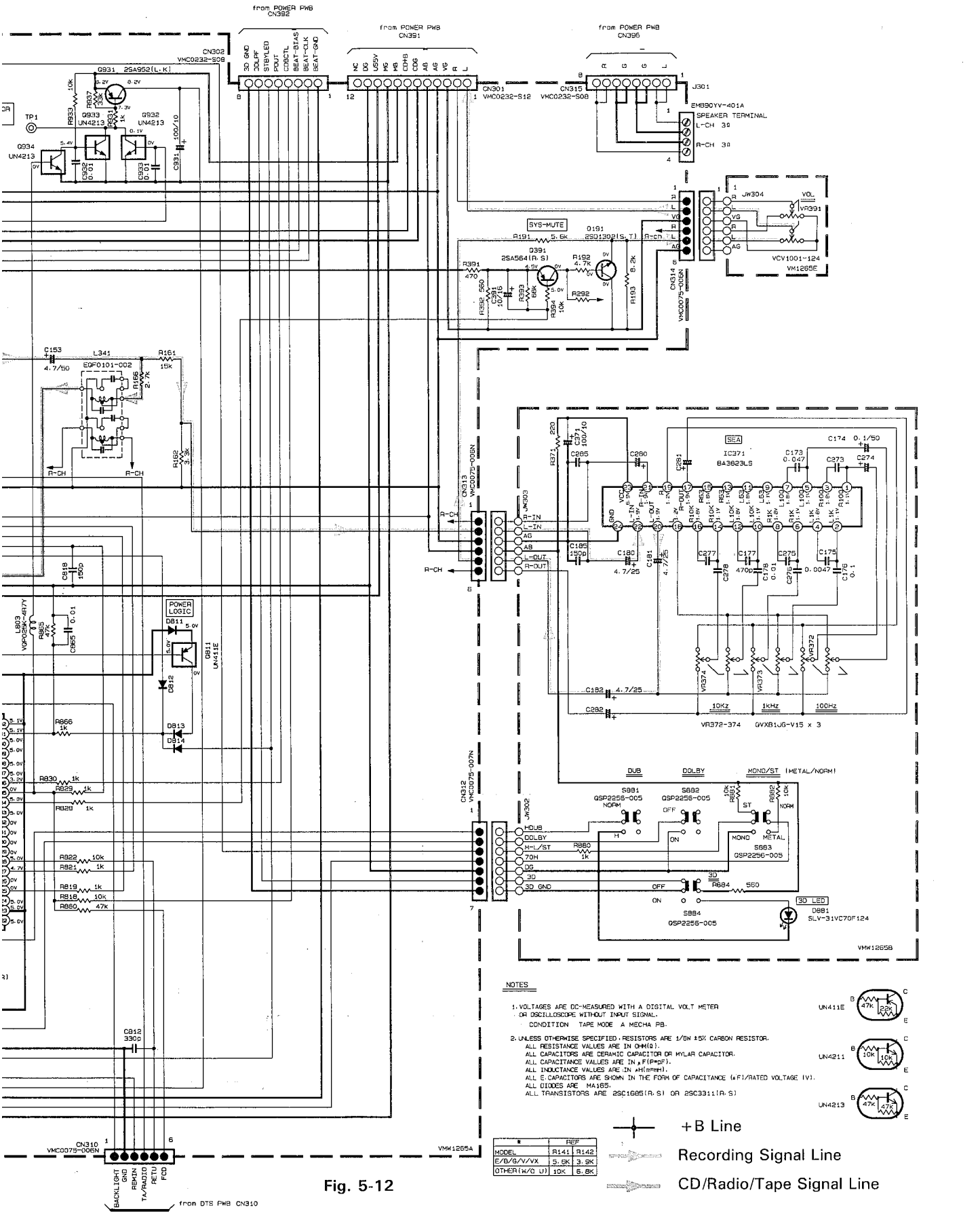

6
7
8
9
10
IC607 BA15218N L.P.F
IC602 TC9201BF SERVO PROCESSOR (BOTTOM VIEW)
IC603 TC9200BF DATA PROCESSOR (BOTTOM VIEW)
IC604
CXK5816PN-15L HM6116LP-3D
CXK5816PS-15L HM6116LP-20
LH5116Y-10 LH5216-12
MK6116-15
LM6116-2 BR6116-100
HM6116P-3D LC3517BS-15
BUFFER
Q503 Q504 2SC2785(HFE)
Q505 2SA1309(R.S) OR 2SA1175 (HFE)
Q501 2SA1309(R.S)
Q502 2SD1302(S.T)
Q514
Q610
EMPHASIS SW
BUFFER AMP
TO ×CON
+B Line
L
R
Analog Signal Line
Digital Signal Line

Fig. 5-11

■ Function Circuit





NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION TAPE MODE A MECHA PB.
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/8W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(P=PF).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
   ALL DIODES ARE MA165.
   ALL TRANSISTORS ARE 2SC1685(R,S) OR 2SC3311(R,S)

UN411E
UN4211
UN4213

	REF	
MODEL	R141	R142
E/B/G/V/VX	5.6K	3.9K
OTHER(W/O U)	10K	6.8K

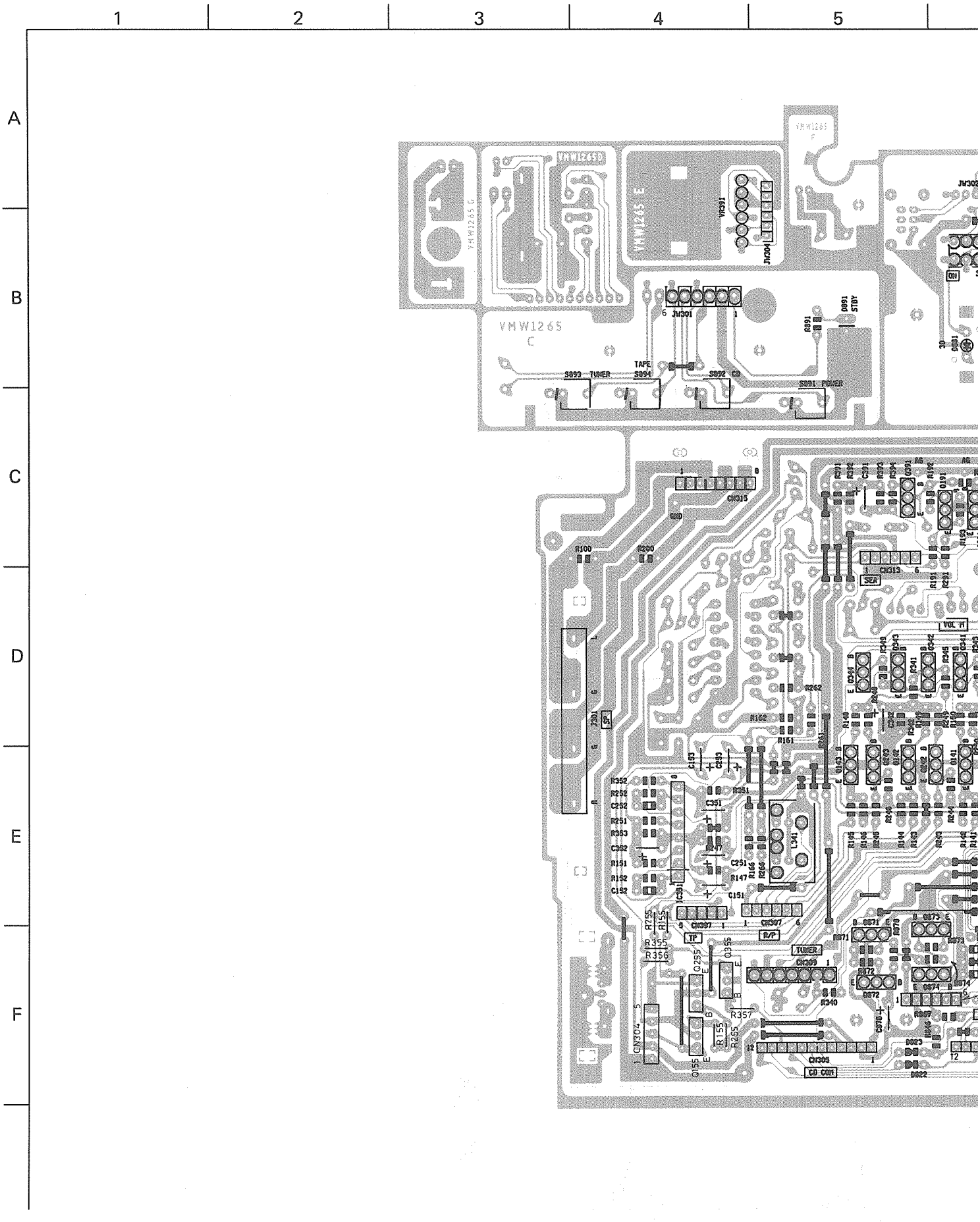
+B Line

Recording Signal Line

CD/Radio/Tape Signal Line

Fig. 5-12

■ Function Board



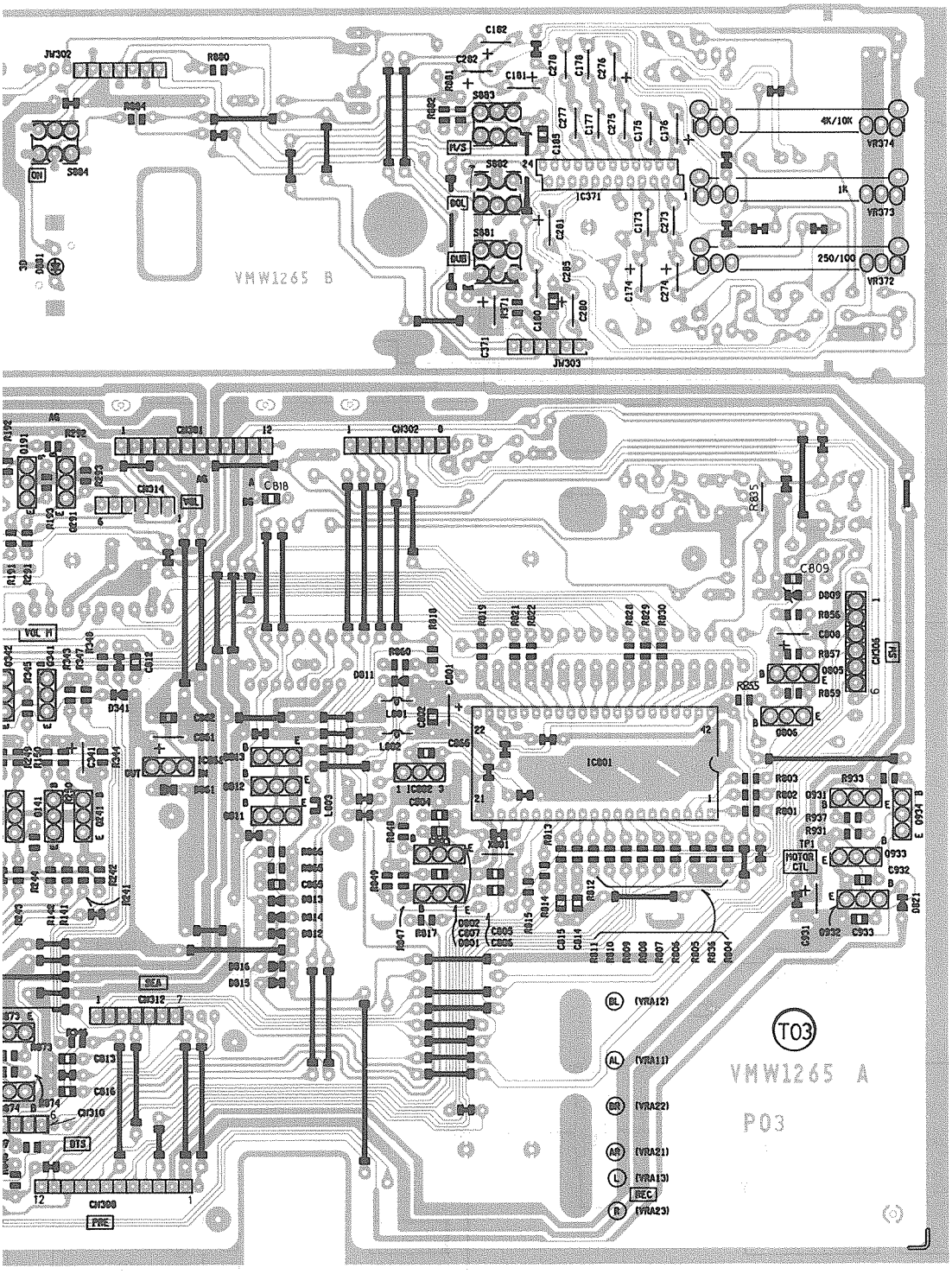

6
7
8
9
10
VMW1265 B
VMW1265 A
P03
T03
4K/10K
VR374
1K
VR373
250/100
VR372
IC371
IC001
JW302
JW303
CN301
CN302
CN314
CN312
CN310
CN308
CN305
VOL
SEA
DIS
PRE
SW
REC
MOTOR CTL
TP1
(VRA12)
(VRA11)
(VRA22)
(VRA21)
(VRA13)
(VRA23)

Fig. 5-13

6 Wiring Connections

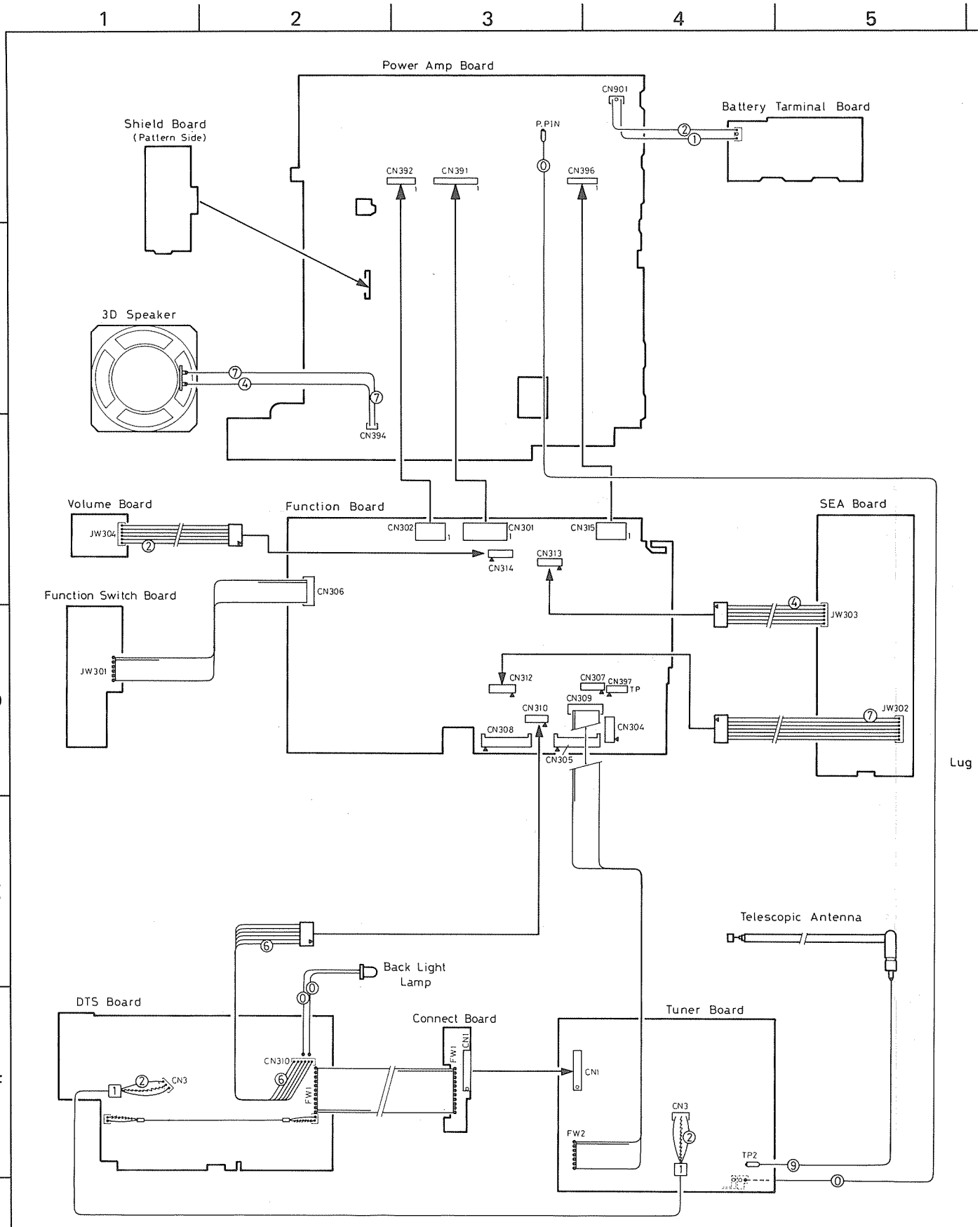
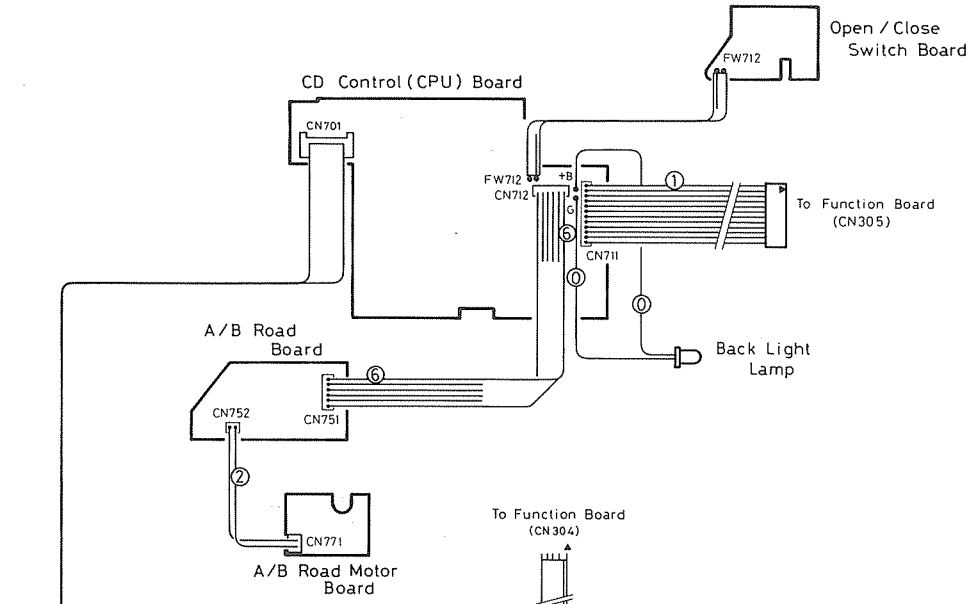
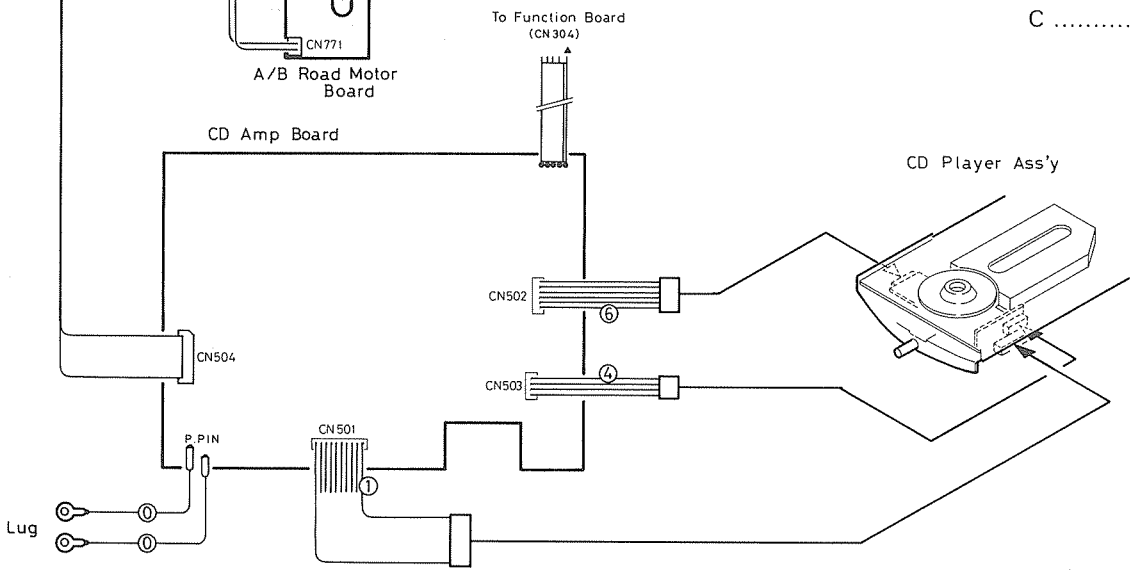


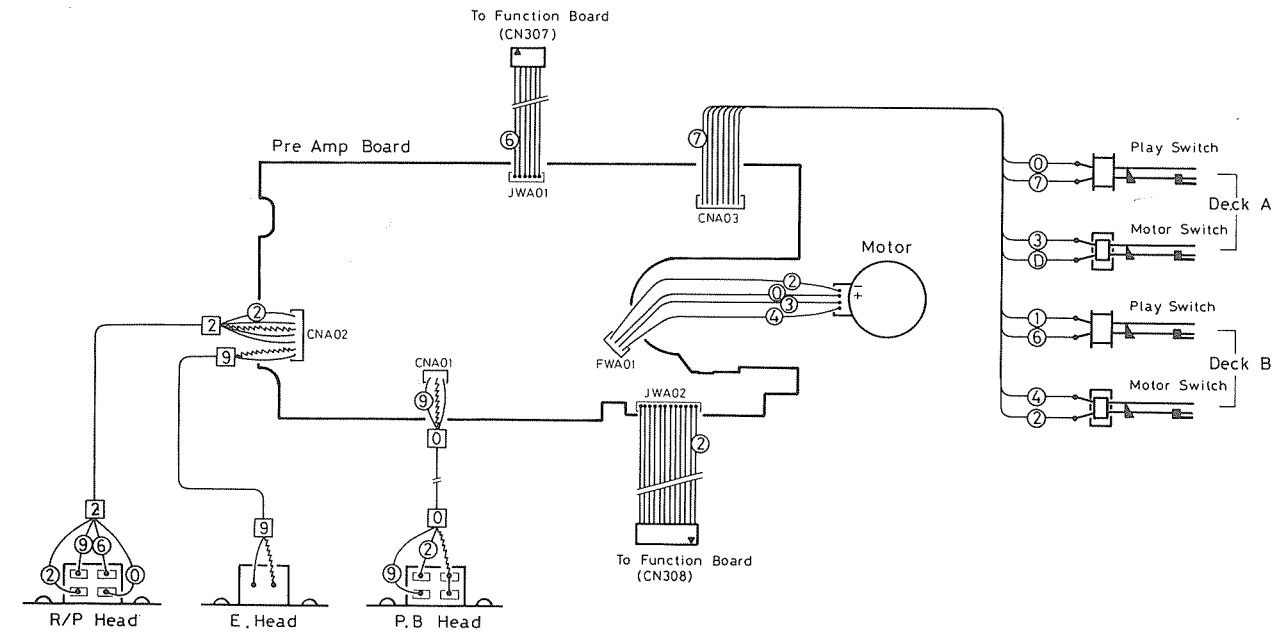
Fig. 6-1



Color codes are shown below.

1 ..... Brown
2 ..... Red
3 ..... Orange
4 ..... Yellow
5 ..... Green
6 ..... Blue
7 ..... Violet
8 ..... Gray
9 ..... White
0 ..... Black
D ..... Pink
C ..... Light Blue





7 P.C. Board Parts List

• Tuner Board Parts List

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME
	BPF	VBP4M3B-005	BP FILTER
	C 001	QCS11HJ-200	C CAPACITOR
	C 002	QCBB1HK-102Y	C CAPACITOR
	C 003	QCS11HJ-5R0	C CAPACITOR
	C 004	QCSB1HK-5R6Y	C CAPACITOR
	C 006	QCVB1CN-103Y	C CAPACITOR
	C 007	QCT30CH-100Y	C CAPACITOR
	C 008	QCT30CH-200Y	C CAPACITOR
	C 009	QCT30CH-2R2Y	C CAPACITOR
	C 010	QCT30CH-120Y	C CAPACITOR
	C 011	QCC11EM-103	C CAPACITOR
	C 012	QCBB1HK-102Y	C CAPACITOR
	C 013	QCC11EM-103	C CAPACITOR
	C 014	QCS11HJ-120	C CAPACITOR
	C 015	QCVB1CN-103Y	C CAPACITOR
	C 016	QCF11HP-103	C CAPACITOR
	C 017	QCS11HJ-330	C CAPACITOR
	C 020	QCC11EM-473	C CAPACITOR
	C 021	QFP31HG-431ZM	PP CAPACITOR
	C 022	QCVB1CM-103Y	C CAPACITOR
	C 024	QER41HM-104	E CAPACITOR
	C 025	QCS11HJ-560	C.CAPACITOR
	C 026	QCS11HJ-151	C CAPACITOR
	C 027	QCBB1HK-151Y	C CAPACITOR
	C 028	QCC11EM-473	C CAPACITOR
	C 029	QETC1HM-475ZN	E CAPACITOR
	C 030	QETC1AM-107ZN	E CAPACITOR
	C 031	QCC11EM-473	C CAPACITOR
	C 032	QCC31EM-273ZV	C CAPACITOR
	C 033	QCBB1HK-331Y	C CAPACITOR
	C 034	QETC1HM-335ZN	E CAPACITOR
	C 035	QCC11EM-683	C CAPACITOR
	C 036	QCC31EM-153ZV	C.CAPACITOR
	C 037	QCC31EM-153ZV	C.CAPACITOR
	C 038	QETC1HM-475ZN	E CAPACITOR
	C 039	QETC1HM-104ZN	E CAPACITOR
	C 040	QETC1HM-104ZN	E CAPACITOR
	C 041	QETC0JM-477ZN	E CAPACITOR
	C 042	VCE0056-479Z	SUPER CAP.
	C 043	QCXB1CM-222Y	C CAPACITOR
	C 045	QCC11EM-223	C CAPACITOR
	C 047	QCC11EM-473	C CAPACITOR
	C 048	QETC1HM-105ZN	E CAPACITOR
	C 049	QETC1HM-105ZN	E CAPACITOR
	C 050	QCBB1HK-151Y	C CAPACITOR
	C 051	QCVB1CN-103Y	C CAPACITOR
	C 052	QCVB1CN-103Y	C CAPACITOR
	C 053	QCS11HJ-240	C CAPACITOR
	C 055	QETC1HM-104ZN	E CAPACITOR
	C 056	QCBB1HK-151Y	C CAPACITOR
	C 059	QCC11EM-473	C CAPACITOR
	C 060	QCC11EM-473	C CAPACITOR
	C 061	QCT30CH-2R2Y	C CAPACITOR
	C 065	QCBB1HK-151Y	C CAPACITOR
	C 066	QCBB1HK-151Y	C CAPACITOR
	C 071	QCBB1HK-471Y	C CAPACITOR
	C 080	QCS11HJ-151	C CAPACITOR
	C 083	QCBB1HK-102Y	C CAPACITOR
	CF 04	CSB456F18	CERA LOCK
	CN 01	VMC0164-011	CONNECTOR
	CN 03	TTL25V-003	CONNECTOR
	D 001	KV1350NT	VARI CAP
	D 002	KV1350NT	VARI CAP
	D 003	KV1350NT	VARI CAP
	D 004	KV1350NT	VARI CAP

⚠	REF.	PARTS NO.	PARTS NAME
	D 005	1SS254	SI DIODE
	D 006	KV1550NT	VARI.CAPACITOR
	D 007	1SS254	SI DIODE
	D 008	KV1550NT	VARI.CAPACITOR
	D 009	KV1550NT	VARI.CAPACITOR
	D 010	KV1550NT	VARI.CAPACITOR
	D 011	KV1550NT	VARI.CAPACITOR
	D 012	1SS254	SI DIODE
	D 015	1SS254	SI DIODE
	D 017	1SS254	SI DIODE
	D 018	1SS254	SI DIODE
	IC 01	TA7358P(N)	IC
	IC 02	TA8132AN	IC
	L 001	V03105-030	RF COIL
	L 002	VQF1B12-003	RF COIL
	L 003	VQB010B-508M	BAR ANTENA
	L 004	VQB010B-508M	BAR ANTENA
	L 005	VQM7U02-403	OSC COIL(MW)
	L 009	V03047-17	COIL
	Q 001	2SC1923(O)E2	TRANSISTOR
	Q 002	2SC1923(O)E2	TRANSISTOR
	Q 003	2SC2785(E,F)	TRANSISTOR
	Q 004	2SC2785(E,F)	TRANSISTOR
	Q 005	2SC2785(E,F)	TRANSISTOR
	Q 006	2SC2785(E,F)	TRANSISTOR
	Q 007	2SA1309(R,S)	TRANSISTOR
	Q 008	2SA1309(R,S)	TRANSISTOR
	Q 009	2SA1309(R,S)	TRANSISTOR
	Q 010	2SC2785(E,F)	TRANSISTOR
	Q 011	2SA1309(R,S)	TRANSISTOR
	Q 012	2SC2785(E,F)	TRANSISTOR
	Q 013	2SD1302(S,T)	TRANSISTOR
	Q 014	2SA1309(R,S)	TRANSISTOR
	R 001	QRD161J-104	CARBON RESISTOR
	R 002	QRD161J-473	CARBON RESISTOR
	R 003	QRD161J-3R3	C RESISTOR
	R 004	QRD161J-102	CARBON RESISTOR
	R 005	QRD161J-823	CARBON RESISTOR
	R 006	QRD161J-102	CARBON RESISTOR
	R 008	QRD161J-181	CARBON RESISTOR
	R 009	QRD161J-102	CARBON RESISTOR
	R 010	QRD161J-683	CARBON RESISTOR
	R 011	QRD161J-104	CARBON RESISTOR
	R 012	QRD161J-103	CARBON RESISTOR
	R 013	QRD161J-103	CARBON RESISTOR
	R 015	QRD161J-103	CARBON RESISTOR
	R 016	QRD161J-683	CARBON RESISTOR
	R 018	QRD161J-103	CARBON RESISTOR
	R 019	QRD161J-103	CARBON RESISTOR
	R 020	QRD161J-103	CARBON RESISTOR
	R 021	QRD161J-104	CARBON RESISTOR
	R 022	QRD161J-103	CARBON RESISTOR
	R 023	QRD161J-103	CARBON RESISTOR
	R 024	QRD161J-103	CARBON RESISTOR
	R 025	QRD161J-222	CARBON RESISTOR
	R 026	QRD161J-222	CARBON RESISTOR
	R 027	QRD161J-103	CARBON RESISTOR
	R 028	QRD161J-220	CARBON RESISTOR
	R 029	QRD161J-331	CARBON RESISTOR
	R 030	QRD161J-103	CARBON RESISTOR
	R 031	QRD161J-474	CARBON RESISTOR
	R 032	QRD161J-331	CARBON RESISTOR
	R 035	QRD161J-152	CARBON RESISTOR
	R 037	QRD161J-183	C RESISTOR
	R 038	QRD161J-223	CARBON RESISTOR

⚠	REF.	PARTS NO.	PARTS NAME
	R 039	QRD161J-103	CARBON RESISTOR
	R 040	QRD161J-822	CARBON RESISTOR
	R 041	QRD161J-103	CARBON RESISTOR
	R 043	QRD161J-103	CARBON RESISTOR
	R 044	QRD161J-224	CARBON RESISTOR
	R 045	QRD161J-104	CARBON RESISTOR
	R 047	QRD161J-472	CARBON RESISTOR
	R 048	QRD161J-102	CARBON RESISTOR
	R 049	QRD161J-102	CARBON RESISTOR
	R 050	QRD161J-102	C RESISTOR
	R 052	QRD161J-681	C RESISTOR
	R 053	QRD161J-104	C.RESISTOR
	R 054	QRD161J-102	CARBON RESISTOR
	T 001	VQT7F12-111	IFT
	T 002	VQT7A21-105	IFT
	TC 01	QAT3620-100M	T CAPACITOR
	TC 02	QAT3620-100M	T CAPACITOR
	TC 03	QAT3620-200M	T CAPACITOR
	TC 04	QAT3620-200M	T CAPACITOR
	CF01,02	VCF2L3B-105	C. FILTER
	CF03	VCF1Z2Z-104	C. FILTER

• Power & Preamplifier Board Parts List

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME
	C 101	QETC1HM-105ZN	E CAPACITOR
	C 102	QETC1AM-476ZN	E CAPACITOR
	C 103	QCBB1HK-151Y	C CAPACITOR
	C 104	QETC1AM-107ZN	E CAPACITOR
	C 105	QCC11EM-104	C CAPACITOR
	C 106	QETC1AM-108ZN	E CAPACITOR
	C 201	QETC1HM-105ZN	E CAPACITOR
	C 202	QETC1AM-476ZN	E CAPACITOR
	C 203	QCBB1HK-151Y	C CAPACITOR
	C 204	QETC1AM-107ZN	E CAPACITOR
	C 205	QCC11EM-104	C CAPACITOR
	C 206	QETC1AM-108ZN	E CAPACITOR
	C 301	QETC1EM-227ZN	E CAPACITOR
	C 302	QETC1CM-226ZN	E CAPACITOR
	C 305	QETC1AM-107ZN	E CAPACITOR
	C 306	QETC1HM-335ZN	E CAPACITOR
	C 307	QETC1HM-154Z	E CAPACITOR
	C 308	QFV41HJ-683	TF.CAPACITOR
	C 309	QFV71HJ-273ZM	TF.CAPACITOR
	C 310	QCC11EM-683	C CAPACITOR
	C 311	QCC11EM-683	C CAPACITOR
	C 312	QCVB1CN-103Y	C CAPACITOR
	C 313	QCVB1CN-103Y	C CAPACITOR
	C 314	QETC1AM-476ZN	E CAPACITOR
	C 315	QETC1AM-476ZN	E CAPACITOR
	C 316	QCC11EM-104	C CAPACITOR
	C 317	QCC11EM-104	C CAPACITOR
	C 318	QETC1AM-107ZN	E CAPACITOR
	C 319	QETC1AM-107ZN	E CAPACITOR
	C 320	QETC1EM-227ZN	E CAPACITOR
	C 321	QETC1AM-227ZN	E CAPACITOR
	C 901	QETC1AM-227ZN	E CAPACITOR
	C 902	QCVB1CN-103Y	C CAPACITOR
	C 903	QCVB1CN-103Y	C CAPACITOR
	C 904	QCC11EM-104	C CAPACITOR
	C 905	QETC1HM-475ZN	E CAPACITOR
	C 911	QETC1AM-227ZN	E CAPACITOR
	C 912	QCVB1CN-103Y	C CAPACITOR
	C 913	QCVB1CN-103Y	C CAPACITOR
	C 914	QCC11EM-104	C CAPACITOR
	C 915	QETC1HM-475ZN	E CAPACITOR
	C 921	QETC1AM-227ZN	E CAPACITOR
	C 922	QCVB1CN-103Y	C CAPACITOR
	C 941	QETC1EM-476ZN	E CAPACITOR
	C 942	QETC1CM-226ZN	E CAPACITOR

⚠	REF.	PARTS NO.	PARTS NAME
	C 943	QETC1HM-105ZN	E CAPACITOR
	C 951	QETC1AM-107ZN	E CAPACITOR
	C 952	QFV41HJ-683	TF.CAPACITOR
	C 991	QETB1EM-478	E.CAPACITOR
	C 996	QCF11HP-223	C CAPACITOR
	C 997	QCF11HP-223	C CAPACITOR
	C 998	QCF11HP-223	C CAPACITOR
	C 999	QCF11HP-223	C CAPACITOR
	CA101	QCBB1HK-561Y	C CAPACITOR
	CA102	QCBB1HK-561Y	C CAPACITOR
	CA103	QETC1AM-107ZN	E CAPACITOR
	CA104	QFV41HJ-123	FILM CAPACITOR
	CA105	QETC1HM-335ZN	E CAPACITOR
	CA106	QCC11EM-473	C CAPACITOR
	CA107	QETC1HM-474ZN	E CAPACITOR
	CA121	QCC31EM-273ZV	C CAPACITOR
	CA122	QETC1HM-335ZN	E CAPACITOR
	CA123	QETC1AM-476ZN	E CAPACITOR
	CA124	QCY41HK-822	C CAPACITOR
	CA125	QCBB1HK-331Y	C CAPACITOR
	CA126	QFV41HJ-103	FILM CAPACITOR
	CA127	QETC1HM-474ZN	E CAPACITOR
	CA128	QCC11EM-104	C CAPACITOR
	CA129	QETC1HM-105ZN	E CAPACITOR
	CA130	QCBB1HK-102Y	C CAPACITOR
	CA131	QCBB1HK-561Y	C CAPACITOR
	CA132	QCBB1HK-331Y	C CAPACITOR
	CA141	QETC1HM-474ZN	E CAPACITOR
	CA142	QCBB1HK-331Y	C CAPACITOR
	CA143	QCBB1HK-331Y	C CAPACITOR
	CA144	QFV41HJ-224	TF CAPACITOR
	CA145	QETC1HM-474ZN	E CAPACITOR
	CA146	QETC1HM-474ZN	E CAPACITOR
	CA201	QCBB1HK-561Y	C CAPACITOR
	CA202	QCBB1HK-561Y	C CAPACITOR
	CA203	QETC1AM-107ZN	E CAPACITOR
	CA204	QFV41HJ-123	FILM CAPACITOR
	CA205	QETC1HM-335ZN	E CAPACITOR
	CA206	QCC11EM-473	C CAPACITOR
	CA207	QETC1HM-474ZN	E CAPACITOR
	CA221	QCC31EM-273ZV	C CAPACITOR
	CA222	QETC1HM-335ZN	E CAPACITOR
	CA223	QETC1AM-476ZN	E CAPACITOR
	CA224	QCY41HK-822	C CAPACITOR
	CA225	QCBB1HK-331Y	C CAPACITOR
	CA226	QFV41HJ-103	FILM CAPACITOR
	CA227	QETC1HM-474ZN	E CAPACITOR
	CA228	QCC11EM-104	C CAPACITOR
	CA229	QETC1HM-105ZN	E CAPACITOR
	CA230	QCBB1HK-102Y	C CAPACITOR
	CA231	QCBB1HK-561Y	C CAPACITOR
	CA232	QCBB1HK-331Y	C CAPACITOR
	CA241	QETC1HM-474ZN	E CAPACITOR
	CA242	QCBB1HK-331Y	C CAPACITOR
	CA243	QCBB1HK-331Y	C CAPACITOR
	CA244	QFV41HJ-224	TF CAPACITOR
	CA245	QETC1HM-474ZN	E CAPACITOR
	CA246	QETC1HM-474ZN	E CAPACITOR
	CA301	QETC1AM-476ZN	E CAPACITOR
	CA302	QETC1CM-106ZN	E CAPACITOR
	CA303	QETC1AM-476ZN	E CAPACITOR
	CA304	QETC1AM-476ZN	E CAPACITOR
	CA305	QETC1CM-106ZN	E CAPACITOR
	CA321	QETC1AM-107ZN	E CAPACITOR
	CA322	QETC1AM-107ZN	E CAPACITOR
	CA323	QETC1CM-106ZN	E CAPACITOR
	CA341	QETC1AM-476ZN	E CAPACITOR
	CA342	QETC1HM-335ZN	E CAPACITOR
	CA343	QETC1HM-105ZN	E CAPACITOR
	CA344	QETC1CM-106ZN	E CAPACITOR

⚠	REF.	PARTS NO.	PARTS NAME
	CA351	QETC1CM-106ZN	E CAPACITOR
	CA352	QFN41HJ-392	M CAPACITOR
	CA353	QCC11EM-123	C CAPACITOR
	CA354	QFV41HJ-333	TF CAPACITOR
	CA355	QFV71HJ-154ZM	TF CAPACITOR
	CNA01	QMV5011-003	CONNECTOR
	CNA02	QMV5011-007	CONNECTOR
	CNA03	VMC0075-008N	CONNECTOR
	CN391	VMC0232-P12	CONNECTOR
	CN392	VMC0232-P08	CONNECTOR
	CN394	VMC0040-002	CONNECTOR
	CN396	VMC0232-P08	CONNECTOR
	CN901	VMC0040-003	CONNECTOR
	D 301	MA700A	S.B.DIODE
	D 302	MA700A	S.B.DIODE
	D 901	HZS7C2	Z DIODE
	D 902	MA165	SI DIODE
	D 903	MA165	SI DIODE
	D 911	HZS7C2	Z DIODE
	D 912	MA165	SI DIODE
	D 913	MA165	SI DIODE
	D 943	HZS5C1	Z DIODE
	D 951	1SR35-100	SI DIODE
	D 995	1N5401F	SI DIODE
	D 996	1N5401M	DIODE
	D 997	1N5401M	DIODE
	D 998	1N5401M	DIODE
	D 999	1N5401M	DIODE
	DA121	MA165	SI DIODE
	DA122	MA165	SI DIODE
	DA221	MA165	SI DIODE
	DA222	MA165	SI DIODE
	DA301	MA165	SI DIODE
	DA302	MA165	SI DIODE
	DA303	MA165	SI DIODE
	DA304	MA165	SI DIODE
	DA305	MA165	SI DIODE
	ICA01	TA7739P	IC
	ICA02	LA3220	IC
	ICA03	HA12134A	IC
	IC303	AN78L05	IC
	IC304	TA8223K	IC
	IC305	TA8223K	IC
	J 391	VMJ4024-001	JACK
	J 998	QMA431B-V01	DC JACK
	J 999	QMC0263-004	AC SOCKET
	LA121	VQP0001-562ZS	INDUCTOR
	LA122	VQP0001-103ZS	INDUCTOR
	LA221	VQP0001-562ZS	INDUCTOR
	LA222	VQP0001-103ZS	INDUCTOR
	LA351	VQH1009-026	OSC COIL
	Q 301	2SC945L(P)	TRANSISTOR
	Q 901	2SB772(Q,P)	TRANSISTOR
	Q 902	2SC3311(R,S)	TRANSISTOR
	Q 903	2SC3311(R,S)	TRANSISTOR
	Q 904	2SC3311(R,S)	TRANSISTOR
	Q 911	2SB772(Q,P)	TRANSISTOR
	Q 912	2SC3311(R,S)	TRANSISTOR
	Q 913	2SC3311(R,S)	TRANSISTOR
	Q 914	2SC3311(R,S)	TRANSISTOR
	Q 941	2SC3311(R,S)	TRANSISTOR
	Q 951	2SA952(L,K)	TRANSISTOR
	Q 952	2SC3311(R,S)	TRANSISTOR
	QA101	DTC114TS	TRANSISTOR
	QA102	DTC114TS	TRANSISTOR
	QA103	DTC114TS	TRANSISTOR
	QA104	2SC3311(R,S)	TRANSISTOR
	QA121	2SD1302(S,T)	TRANSISTOR
	QA201	DTC114TS	TRANSISTOR
	QA202	DTC114TS	TRANSISTOR

⚠	REF.	PARTS NO.	PARTS NAME
	QA203	DTC114TS	TRANSISTOR
	QA204	2SC3311(R,S)	TRANSISTOR
	QA221	2SD1302(S,T)	TRANSISTOR
	QA301	DTC144ES	TRANSISTOR
	QA340	DTC114TS	TRANSISTOR
	QA351	2SC3311(R,S)	TRANSISTOR
	QA361	2SK301(P,Q)	FET
	QA371	2SC3311(R,S)	TRANSISTOR
	QA372	2SC3311(R,S)	TRANSISTOR
	QA374	DTC144ES	TRANSISTOR
	QA375	DTC114ES	DIGI.TRANSISTOR
	QA376	DTC114TS	TRANSISTOR
	R 101	QRD161J-221	CARBON RESISTOR
	R 102	QRD161J-2R2	CARBON RESISTOR
	R 103	QRD161J-151	CARBON RESISTOR
	R 105	QRD161J-102	CARBON RESISTOR
	R 201	QRD161J-221	CARBON RESISTOR
	R 202	QRD161J-2R2	CARBON RESISTOR
	R 203	QRD161J-151	CARBON RESISTOR
	R 205	QRD161J-102	CARBON RESISTOR
	R 301	QRD161J-222	CARBON RESISTOR
	R 302	QRD161J-102	CARBON RESISTOR
	R 303	QRD161J-563	CARBON RESISTOR
	R 304	QRD161J-104	CARBON RESISTOR
	R 305	QRD161J-104	CARBON RESISTOR
	R 306	QRD161J-393	CARBON RESISTOR
	R 307	QRD161J-393	CARBON RESISTOR
	R 308	QRD161J-102	CARBON RESISTOR
	R 309	QRD161J-102	CARBON RESISTOR
	R 310	QRD161J-393	CARBON RESISTOR
	R 311	QRD161J-393	CARBON RESISTOR
	R 312	QRD161J-473	CARBON RESISTOR
	R 313	QRD161J-473	CARBON RESISTOR
	R 314	QRD161J-151	CARBON RESISTOR
	R 315	QRD161J-151	CARBON RESISTOR
	R 316	QRD161J-2R2	CARBON RESISTOR
	R 317	QRD161J-2R2	CARBON RESISTOR
	R 901	QRD161J-102	CARBON RESISTOR
	R 902	QRD161J-564	CARBON RESISTOR
	R 903	QRD161J-102	CARBON RESISTOR
	R 904	QRD161J-103	CARBON RESISTOR
	R 906	QRD161J-104	CARBON RESISTOR
	R 907	QRD161J-102	CARBON RESISTOR
	R 908	QRD161J-102	CARBON RESISTOR
	R 909	QRD161J-222	CARBON RESISTOR
	R 910	QRD161J-104	CARBON RESISTOR
	R 911	QRD161J-561	CARBON RESISTOR
	R 912	QRD161J-564	CARBON RESISTOR
	R 913	QRD161J-102	CARBON RESISTOR
	R 914	QRD161J-223	CARBON RESISTOR
	R 915	QRD161J-223	CARBON RESISTOR
	R 916	QRD161J-104	CARBON RESISTOR
	R 917	QRD161J-102	CARBON RESISTOR
	R 918	QRD161J-102	CARBON RESISTOR
	R 919	QRD161J-222	CARBON RESISTOR
	R 920	QRD161J-104	CARBON RESISTOR
	R 941	QRD161J-121	CARBON RESISTOR
	R 942	QRD161J-101	CARBON RESISTOR
	R 943	QRD161J-223	CARBON RESISTOR
	R 944	QRD161J-333	CARBON RESISTOR
	R 945	QRD161J-220	CARBON RESISTOR
	R 947	QRD161J-331	CARBON RESISTOE
	R 951	QRD161J-220	CARBON RESISTOR
	R 952	QRD161J-562	CARBON RESISTOR
	R 953	QRD161J-392	CARBON RESISTOR
	R 954	QRD161J-473	CARBON RESISTOR
	R 955	QRD161J-333	CARBON RESISTOR
	RA101	QRD161J-101	CARBON RESISTOR
	RA102	QRD161J-682	CARBON RESISTOR
	RA103	QRD161J-334	CARBON RESISTOR

⚠	REF.	PARTS NO.	PARTS NAME
	RA104	QRD161J-562	CARBON RESISTOR
	RA105	QRD161J-682	CARBON RESISTOR
	RA106	QRD161J-104	CARBON RESISTOR
	RA107	QRD161J-104	CARBON RESISTOR
	RA108	QRD161J-272	CARBON RESISTOR
	RA109	QRD161J-473	CARBON RESISTOR
	RA121	QRD161J-154	CARBON RESISTOR
	RA122	QRD161J-823	CARBON RESISTOR
	RA123	QRD161J-681	CARBON RESISTOR
	RA124	QRD161J-102	CARBON RESISTOR
	RA125	QRD161J-121	CARBON RESISTOR
	RA126	QRD161J-221	CARBON RESISTOR
	RA127	QRD161J-473	CARBON RESISTOR
	RA128	QRD161J-682	CARBON RESISTOR
	RA129	QRD161J-393	CARBON RESISTOR
	RA130	QRD161J-153	CARBON RESISTOR
	RA141	QRD161J-623Y	CARBON RESISTOR
	RA142	QRD161J-392	CARBON RESISTOR
	RA143	QRD161J-473	CARBON RESISTOR
	RA201	QRD161J-101	CARBON RESISTOR
	RA202	QRD161J-682	CARBON RESISTOR
	RA203	QRD161J-334	CARBON RESISTOR
	RA204	QRD161J-562	CARBON RESISTOR
	RA205	QRD161J-682	CARBON RESISTOR
	RA206	QRD161J-104	CARBON RESISTOR
	RA207	QRD161J-104	CARBON RESISTOR
	RA208	QRD161J-272	CARBON RESISTOR
	RA209	QRD161J-473	CARBON RESISTOR
	RA221	QRD161J-154	CARBON RESISTOR
	RA222	QRD161J-823	CARBON RESISTOR
	RA223	QRD161J-681	CARBON RESISTOR
	RA224	QRD161J-102	CARBON RESISTOR
	RA225	QRD161J-121	CARBON RESISTOR
	RA226	QRD161J-221	CARBON RESISTOR
	RA227	QRD161J-473	CARBON RESISTOR
	RA228	QRD161J-682	CARBON RESISTOR
	RA229	QRD161J-393	CARBON RESISTOR
	RA230	QRD161J-153	CARBON RESISTOR
	RA241	QRD161J-623Y	CARBON RESISTOR
	RA242	QRD161J-392	CARBON RESISTOR
	RA243	QRD161J-473	CARBON RESISTOR
	RA301	QRD161J-152	CARBON RESISTOR
	RA302	QRD161J-823	CARBON RESISTOR
	RA303	QRD161J-103	CARBON RESISTOR
	RA304	QRD161J-103	CARBON RESISTOR
	RA305	QRD161J-472	CARBON RESISTOR
	RA306	QRD161J-103	CARBON RESISTOR
	RA307	QRD161J-103	CARBON RESISTOR
	RA321	QRD161J-101	CARBON RESISTOR
	RA322	QRD161J-475	CARBON RESISTOR
	RA323	QRD161J-475	CARBON RESISTOR
	RA324	QRD161J-102	CARBON RESISTOR
	RA341	QRD161J-101	CARBON RESISTOR
	RA343	QRD161J-473	CARBON RESISTOR
	RA344	QRD161J-183	CARBON RESISTOR
	RA345	QRD161J-333	CARBON RESISTOR
	RA346	QRD161J-471	CARBON RESISTOR
	RA347	QRD161J-102	CARBON RESISTOR
	RA348	QRD161J-103	CARBON RESISTOR
	RA351	QRD14CJ-560SX	C RESISTOR
	RA352	QRD161J-101	CARBON RESISTOR
	RA353	QRD161J-393	CARBON RESISTOR
	RA354	QRD161J-2R2	CARBON RESISTOR
	RA361	QRD161J-105	CARBON RESISTOR
	RA362	QRD161J-392	CARBON RESISTOR
	RA363	QRD161J-222	CARBON RESISTOR
	RA371	QRD161J-103	CARBON RESISTOR
	RA372	QRD161J-473	CARBON RESISTOR
	RA373	QRD161J-103	CARBON RESISTOR
	RA374	QRD161J-473	CARBON RESISTOR
	RA375	QRD161J-473	CARBON RESISTOR
	RA376	QRD161J-103	CARBON RESISTOR
	RA377	QRD161J-472	CARBON RESISTOR
	S 951	QSS7A23-V06	SLIDE SWITCH
	SA301	QSS1G62-V01	SLIDE SWITCH
	VRA11	QVPA603-103AZM	SEMI.V.RESISITO
	VRA12	QVPA603-203AZM	SEMI.V.RESISTOR
	VRA13	QVPA603-502AZM	SEMI.V.RESISTOR
	VRA14	QVPA603-503AZM	V RESISTOR
	VRA21	QVPA603-103AZM	SEMI.V.RESISITO
	VRA22	QVPA603-203AZM	SEMI.V.RESISTOR
	VRA23	QVPA603-502AZM	SEMI.V.RESISTOR
	VRA24	QVPA603-503AZM	V RESISTOR
	VRA31	QVPA603-202AZM	V RESISTOR

• DTS Board Parts List

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME
	CNS01	VMC0165-011	CONNECTOR
	CS 03	QCC11EM-473	C CAPACITOR
	CS 04	QCVB1CM-103Y	C CAPACITOR
	CS 05	QCBB1HK-101Y	C CAPACITOR
	CS 06	QCT30CH-8R2Y	C.CAPACITOR
	CS 07	QFV41HJ-224	TF CAPACITOR
	CS 08	QCVB1CM-103Y	C CAPACITOR
	CS 09	QCXB1CM-562Y	C CAPACITOR
	CS 10	QER41HM-225	E.CAPACITOR
	CS 11	QCVB1CM-103Y	C CAPACITOR
	CS 14	QCC11EM-473	C CAPACITOR
	CS 17	QCBB1HK-151Y	C CAPACITOR
	CS 20	QCC11EM-473	C CAPACITOR
	CS 22	QCBB1HK-151Y	C CAPACITOR
	CS 24	QER60JM-107ZN	E CAP
	CS 25	QCVB1CM-103Y	C CAPACITOR
	CS 28	QCBB1HK-151Y	C CAPACITOR
	CS 29	QCBB1HK-151Y	C CAPACITOR
	CS 30	QCBB1HK-151Y	C CAPACITOR
	DS 01	MA165	SI DIODE
	DS 02	MA165	SI DIODE
	DS 03	MA165	SI DIODE
	DS 04	MA165	SI DIODE
	DS 05	MA165	SI DIODE
	DS 06	MA165	SI DIODE
	DS 07	MA165	SI DIODE
	DS 12	MA165	SI DIODE
	DS 13	MA165	SI DIODE
	DS 14	MA700A	S.B.DIODE
	ICS 1	UPD1713AG-645	IC
	LCD	VGL1107-001	LCD
	LCD 1	VGL1107-001	LCD
	LS 01	VQP0012-471	INDUCTOR
	LS 03	VQP025K-4R7Y	INDUCTOR
	LS 04	VQP025K-221Y	INDUCTOR
	QS 01	2SA1309(R,S)	TRANSISTOR
	QS 02	2SC2785(E,F)	TRANSISTOR
	QS 03	2SC2785(E,F)	TRANSISTOR
	QS 04	2SA1309(R,S)	TRANSISTOR
	QS 05	2SA1309(R,S)	TRANSISTOR
	QS 06	2SA1309(R,S)	TRANSISTOR
	QS 07	UN4213	TRANSISTOR
	RS 01	QRD161J-223	CARBON RESISTOR
	RS 02	QRD161J-152	CARBON RESISTOR
	RS 03	QRD161J-223	CARBON RESISTOR
	RS 04	QRD161J-223	CARBON RESISTOR
	RS 05	QRD161J-392	CARBON RESISTOR
	RS 06	QRD161J-152	CARBON RESISTOR
	RS 07	QRD161J-222	CARBON RESISTOR
	RS 08	QRD161J-152	CARBON RESISTOR

⚠	REF.	PARTS NO.	PARTS NAME
	RS 09	QRD161J-471	CARBON RESISTOR
	RS 10	QRD161J-474	CARBON RESISTOR
	RS 11	QRD161J-223	CARBON RESISTOR
	RS 12	QRD161J-223	CARBON RESISTOR
	RS 13	QRD161J-473	CARBON RESISTOR
	RS 14	QRD161J-102	CARBON RESISTOR
	RS 15	QRD161J-223	CARBON RESISTOR
	RS 16	QRD161J-102	CARBON RESISTOR
	RS 17	QRD161J-223	CARBON RESISTOR
	RS 18	QRD161J-223	CARBON RESISTOR
	RS 19	QRD161J-333	CARBON RESISTOR
	RS 20	QRD161J-223	CARBON RESISTOR
	RS 23	QRD161J-154	CARBON RESISTOR
	RS 24	QRD161J-102	CARBON RESISTOR
	RS 26	QRD161J-333	CARBON RESISTOR
	RS 27	QRD161J-223	CARBON RESISTOR
	SS 01	QSP4H11-V06Z	TACT SWITCH
	SS 02	QSP4H11-V06Z	TACT SWITCH
	SS 03	QSP4H11-V06Z	TACT SWITCH
	SS 04	QSP4H11-V06Z	TACT SWITCH
	SS 05	QSP4H11-V06Z	TACT SWITCH
	SS 06	QSP4H11-V06Z	TACT SWITCH
	SS 07	QSP4H11-V06Z	TACT SWITCH
	SS 08	QSP4H11-V06Z	TACT SWITCH
	X	V472124-A0	CRYSTAL
	XS 01	V472124-A0	CRYSTAL

• CD Amplifier Board Parts List

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME
	C 502	QEK41CM-476	E CAPACITOR
	C 505	QCBB1HK-471Y	C CAPACITOR
	C 506	QCC11EM-223	C CAPACITOR
	C 507	QCS11HJ-680	C CAPACITOR
	C 508	QETC1AM-476ZN	E CAPACITOR
	C 509	QCS11HJ-680	C CAPACITOR
	C 510	QCSB1HK-2R2Y	C CAPACITOR
	C 511	QCC11EM-223	C CAPACITOR
	C 512	QCS11HJ-220	C CAPACITOR
	C 513	QCBB1HK-820Y	C CAPACITOR
	C 514	QCVB1CM-103Y	C CAPACITOR
	C 515	QCC11EM-473	C CAPACITOR
	C 516	QCS11HJ-470	C CAPACITOR
	C 517	QCBB1HK-151Y	C CAPACITOR
	C 518	QCBB1HK-101Y	C CAPACITOR
	C 519	QCS11HJ-330	C CAPACITOR
	C 520	QCXB1CM-222Y	C CAPACITOR
	C 521	QEK41CM-476	E CAPACITOR
	C 522	QCBB1HK-221Y	C CAPACITOR
	C 523	QCBB1HK-221Y	C CAPACITOR
	C 525	QER41EM-475	E CAPACITOR
	C 526	QETC1AM-476ZN	E CAPACITOR
	C 527	QEN61HM-105Z	NP.E.CAPACITOR
	C 528	QFV41HJ-223	FILM CAPACITOR
	C 529	QFV71HJ-273ZM	TF.CAPACITOR
	C 531	QCY41HK-822	C CAPACITOR
	C 535	QFV41HJ-224	TF CAPACITOR
	C 544	QCS11HJ-100	C CAPACITOR
	C 545	QCS11HJ-100	C CAPACITOR
	C 547	QCC11EM-473	C CAPACITOR
	C 548	QETC1AM-476ZN	E CAPACITOR
	C 549	QCC11EM-473	C CAPACITOR
	C 550	QCBB1HK-331Y	C CAPACITOR
	C 551	QETC1AM-476ZN	E CAPACITOR
	C 552	QETC1AM-476ZN	E CAPACITOR

⚠	REF.	PARTS NO.	PARTS NAME
	C 553	QCY41HK-122	C CAPACITOR
	C 554	QETC1EM-106ZN	E CAPACITOR
	C 555	QCY41HK-122	C CAPACITOR
	C 556	QETC1AM-476ZN	E CAPACITOR
	C 557	QCBB1HK-331Y	C CAPACITOR
	C 563	QFV41HJ-123	FILM CAPACITOR
	C 587	QCVB1CM-103Y	C CAPACITOR
	C 595	QETC1AM-107ZN	E CAPACITOR
	C 599	QCS11HJ-201	C CAPACITOR
	C 604	QETC1HM-475ZN	E CAPACITOR
	C 605	QETC1HM-475ZN	E CAPACITOR
	C 606	QCXB1CM-562Y	C CAPACITOR
	C 607	QCXB1CM-562Y	C CAPACITOR
	C 608	QCXB1CM-682Y	C CAPACITOR
	C 609	QCXB1CM-682Y	C CAPACITOR
	C 610	QCS11HJ-680	C CAPACITOR
	C 611	QCS11HJ-680	C CAPACITOR
	C 612	QETC1HM-105ZN	E CAPACITOR
	C 613	QETC1HM-105ZN	E CAPACITOR
	C 614	QCC11EM-123	C CAPACITOR
	C 615	QCC11EM-123	C CAPACITOR
	C 616	QETC1AM-107ZN	E CAPACITOR
	C 617	QETC1AM-107ZN	E CAPACITOR
	C 618	QCC11EM-223	C CAPACITOR
	C 620	QETC1AM-107ZN	E CAPACITOR
	C 621	QETC1AM-477ZN	E CAPACITOR
	C 623	QETC1AM-476ZN	E CAPACITOR
	C 640	QCBB1HK-151Y	C CAPACITOR
	CN501	VMC0075-010N	CONNECTOR
	CN502	VMC0075-006N	CONNECTOR
	CN503	VMC0075-004N	CONNECTOR
	CN504	VMC0163-012	CONNECTOR
	D 603	MA165	SI DIODE
	D 610	HZS5.6EB3	Z DIODE
	FB 01	VQZ0048-006	EMI FILTER
	FB 02	VQZ0048-006	EMI FILTER
	FB 05	VQZ0048-006	EMI FILTER
	FB 06	VQZ0048-006	EMI FILTER
	IC501	MC13501M	IC
	IC502	NJM3403D-C	IC
	IC503	BA6294	IC
	IC504	BA6294	IC
	IC602	TC9201BF	IC
	IC603	TC9200BF	IC
	IC604	CXK5816PS-15L	IC
	IC605	TD6710AF	IC
	IC607	XRA15218N	IC
	L 703	VQP0028-100Z	INDUCTOR
	PS501	PTH61G30BD2R2N	POSISTER
	Q 501	2SA1175(HFE)	TRANSISTOR
	Q 503	2SC2785(HFE)	TRANSISTOR
	Q 504	2SC2785(HFE)	TRANSISTOR
	Q 505	2SA1175(HFE)	TRANSISTOR
	Q 614	2SD1302(S,T)	TRANSISTOR
	R 501	QRD161J-184	CARBON RESISTOR
	R 502	QRD161J-154	CARBON RESISTOR
	R 503	QRD161J-682	CARBON RESISTOR
	R 504	QRD161J-472	CARBON RESISTOR
	R 505	QRD161J-102	CARBON RESISTOR
	R 506	QRD161J-681	CARBON RESISTOR
	R 507	QRD161J-104	CARBON RESISTOR
	R 508	QRD161J-273	CARBON RESISTOR
	R 509	QRD161J-222	CARBON RESISTOR
	R 510	QRD161J-103	CARBON RESISTOR
	R 511	QRD161J-103	CARBON RESISTOR
	R 512	QRD161J-123	CARBON RESISTOR
	R 513	QRD161J-103	CARBON RESISTOR
	R 514	QRD161J-224	CARBON RESISTOR
	R 515	QRD161J-333	CARBON RESISTOR
	R 516	QRD161J-153	CARBON RESISTOR

⚠	REF.	PARTS NO.	PARTS NAME
	R 517	QRD161J-822	CARBON RESISTOR
	R 519	QRD161J-823	CARBON RESISTOR
	R 520	QRV141F-3302AY	CMF RESISTOR
	R 521	QRD161J-823	CARBON RESISTOR
	R 522	QRD161J-102	CARBON RESISTOR
	R 523	QRD161J-562	CARBON RESISTOR
	R 524	QRD161J-152	CARBON RESISTOR
	R 525	QRD161J-273	CARBON RESISTOR
	R 526	QRD161J-682	CARBON RESISTOR
	R 527	QRD161J-564	CARBON RESISTOR
	R 528	QRD161J-472	CARBON RESISTOR
	R 529	QRD161J-103	CARBON RESISTOR
	R 530	QRD161J-103	CARBON RESISTOR
	R 531	QRD161J-102	CARBON RESISTOR
	R 532	QRD161J-153	CARBON RESISTOR
	R 533	QRD161J-103	CARBON RESISTOR
	R 534	QRD161J-821	CARBON RESISTOR
	R 535	QRD161J-272	CARBON RESISTOR
	R 536	QRD161J-104	CARBON RESISTOR
	R 537	QRD161J-563	CARBON RESISTOR
	R 538	QRD161J-153	CARBON RESISTOR
	R 539	QRD161J-333	CARBON RESISTOR
	R 540	QRD161J-562	CARBON RESISTOR
	R 541	QRD161J-104	CARBON RESISTOR
	R 542	QRD161J-273	CARBON RESISTOR
	R 544	QRD161J-392	CARBON RESISTOR
	R 545	QRD161J-103	CARBON RESISTOR
	R 546	QRD161J-104	CARBON RESISTOR
	R 547	QRD161J-473	CARBON RESISTOR
	R 548	QRD161J-683	CARBON RESISTOR
	R 549	QRD161J-181	CARBON RESISTOR
	R 550	QRD161J-103	CARBON RESISTOR
	R 559	QRD161J-103	CARBON RESISTOR
	R 560	QRD161J-103	CARBON RESISTOR
	R 565	QRD161J-683	CARBON RESISTOR
	R 566	QRD161J-181	CARBON RESISTOR
	R 570	QRD161J-103	CARBON RESISTOR
	R 573	QRD161J-183	CARBON RESISTOR
	R 590	QRD161J-102	CARBON RESISTOR
	R 620	QRD161J-272	CARBON RESISTOR
	R 621	QRD161J-272	CARBON RESISTOR
	R 622	QRD161J-272	CARBON RESISTOR
	R 623	QRD161J-272	CARBON RESISTOR
	R 640	QRD161J-821	CARBON RESISTOR
	R 641	QRD161J-470	CARBON RESISTOR
	R 642	QRD161J-153	CARBON RESISTOR
	R 643	QRD161J-153	CARBON RESISTOR
	R 645	QRD161J-151	CARBON RESISTOR
	R 647	QRD161J-102	CARBON RESISTOR
	R 649	QRD161J-102	CARBON RESISTOR
	R 660	QRD161J-272	CARBON RESISTOR
	R 661	QRD161J-272	CARBON RESISTOR
	R 662	QRD161J-332	CARBON RESISTOR
	R 663	QRD161J-332	CARBON RESISTOR
	R 664	QRD161J-103	CARBON RESISTOR
	R 665	QRD161J-103	CARBON RESISTOR
	R 666	QRD161J-103	CARBON RESISTOR
	R 667	QRD161J-103	CARBON RESISTOR
	R 668	QRD161J-332	CARBON RESISTOR
	R 669	QRD161J-332	CARBON RESISTOR
	R 672	QRD161J-122	CARBON RESISTOR
	R 673	QRD161J-122	CARBON RESISTOR
	R 676	QRV141F-8202AY	CMF RESISTOR
	R 677	QRD161J-333	CARBON RESISTOR
	R 678	QRV141F-3302AY	CMF RESISTOR
	R 681	QRV141F-8202AY	CMF RESISTOR
	R 682	QRV141F-3302AY	CMF RESISTOR
	R 684	QRV141F-8202AY	CMF RESISTOR
	R 685	QRD161J-473	CARBON RESISTOR
	R 686	QRV141F-3302AY	CMF RESISTOR
	R 687	QRD161J-473	CARBON RESISTOR
	R 688	QRD161J-473	CARBON RESISTOR
	R 690	QRZ0077-4R7X	FUSE RESISTOR
	R 691	QRV141F-8202AY	CMF RESISTOR
	R 692	QRD161J-823	CARBON RESISTOR
	R 695	QRV141F-8202AY	CMF RESISTOR
	R 696	QRD161J-183	CARBON RESISTOR
	R 697	QRV141F-3302AY	CMF RESISTOR
	R 698	QRD161J-682	CARBON RESISTOR
	VR501	QVZ3523-503AZ	V RESISTOR
	X 601	VCX5016-934V	CRYSTAL

• CD Board

⚠	REF.	PARTS NO.	PARTS NAME
	C 701	QER41AM-107	E CAPACITOR
	C 705	QCC11EM-103	C CAPACITOR
	C 706	QCVB1CM-103Y	C CAPACITOR
	C 751	QER41AM-107	E CAPACITOR
	C 752	QFV41HJ-683	TF CAPACITOR
	C 753	QFV41HJ-683	TF CAPACITOR
	CN701	VMC0163-R12	CONNECTER
	CN712	VMC0075-006N	CONNECTOR
	CN771	VMC0075-R02N	CONNECTOR
	D 701	MA165	SI DIODE
	D 702	MA165	SI DIODE
	D 703	MA165	SI DIODE
	D 704	MA165	SI DIODE
	D 705	MA165	SI DIODE
	IC701	UPD75312GF-096	IC(CPU)
	IC702	MN1280(R)	IC
	IC703	SBX1610-02	RM RECIVER
	IC751	TA8409S	IC
	LCD02	VGL1099-001	LCD
	PL701	VGZ0001-028V	P.LAMP
	Q 701	UN4211TA	TRANSISTOR
	Q 751	DTC143ZSTP	TRANSISTOR
	Q 752	DTC143ZSTP	TRANSISTOR
	R 721	QRD161J-103	CARBON RESISTOR
	R 722	QRD161J-473	CARBON RESISTOR
	R 723	QRD161J-473	CARBON RESISTOR
	R 724	QRD161J-473	CARBON RESISTOR
	R 725	QRD161J-103	CARBON RESISTOR
	R 741	QRD161J-272	CARBON RESISTOR
	R 742	QRD161J-272	CARBON RESISTOR
	R 751	QRD121J-2R2	CARBON RESISTOR
	R 752	QRD161J-822	CARBON RESISTOR
	R 753	QRD161J-103	CARBON RESISTOR
	R 780	QRD161J-102	CARBON RESISTOR
	R 790	QRD161J-102	CARBON RESISTOR
	S 701	QSQ4H11-V02Z	TACT SW
	S 702	QSQ4H11-V02Z	TACT SW
	S 703	QSQ4H11-V02Z	TACT SW
	S 704	QSQ4H11-V02Z	TACT SW
	S 709	QSQ4H11-V02Z	TACT SW
	S 710	QSQ4H11-V02Z	TACT SW
	S 711	QSP4K11-V01	PUSH SW
	S 751	VSH1153-001	SWITCH
	S 752	VSH1153-001	SWITCH
	X 701	EFO-GC4194T4	CERAMIC RESONAT

• Function Board Parts List

BLOCK NO. 05

⚠	REF.	PARTS NO.	PARTS NAME
	C 151	QETC1HM-225ZN	E CAPACITOR
	C 152	QCS11HJ-330	C CAPACITOR
	C 153	QETC1HM-475ZN	E CAPACITOR
	C 173	QFV41HJ-473	FILM CAPACITOR
	C 174	QETC1HM-105ZN	E CAPACITOR
	C 175	QCXB1CM-472Y	C.CAPACITOR
	C 176	QFV41HJ-104	TF CAPACITOR
	C 177	QCS11HJ-471	C CAPACITOR
	C 178	QCC11EM-103	C CAPACITOR
	C 180	QER41EM-475	E CAPACITOR
	C 181	QER41EM-475	E CAPACITOR
	C 182	QER41EM-475	E CAPACITOR
	C 185	QCBB1HK-151Y	C CAPACITOR
	C 251	QETC1HM-225ZN	E CAPACITOR
	C 252	QCS11HJ-330	C CAPACITOR
	C 253	QETC1HM-475ZN	E CAPACITOR
	C 273	QFV41HJ-473	FILM CAPACITOR
	C 274	QETC1HM-105ZN	E CAPACITOR
	C 275	QCXB1CM-472Y	C.CAPACITOR
	C 276	QFV41HJ-104	TF CAPACITOR
	C 277	QCS11HJ-471	C CAPACITOR
	C 278	QCC11EM-103	C CAPACITOR
	C 280	QER41EM-475	E CAPACITOR
	C 281	QER41EM-475	E CAPACITOR
	C 282	QER41EM-475	E CAPACITOR
	C 285	QCBB1HK-151Y	C CAPACITOR
	C 341	QETC1HM-475ZN	E CAPACITOR
	C 342	QETC1HM-475ZN	E CAPACITOR
	C 351	QETC1CM-476ZN	E CAPACITOR
	C 352	QETC1CM-476ZN	E CAPACITOR
	C 371	QETC1AM-107ZN	E CAPACITOR
	C 391	QETC1CM-106ZN	E CAPACITOR
	C 801	QETC1AM-227ZN	E CAPACITOR
	C 802	QCVB1CM-103Y	C CAPACITOR
	C 803	QCBB1HK-181Y	C.CAPACITOR
	C 804	QCS11HJ-360	C CAPACITOR
	C 805	QCS11HJ-360	C CAPACITOR
	C 806	QCBB1HK-181Y	C.CAPACITOR
	C 807	QCVB1CM-103Y	C CAPACITOR
	C 808	QETC1HM-105ZN	E CAPACITOR
	C 809	QCVB1CM-103Y	C CAPACITOR
	C 812	QCBB1HK-331Y	C CAPACITOR
	C 813	QCBB1HK-151Y	C CAPACITOR
	C 816	QCBB1HK-151Y	C CAPACITOR
	C 818	QCBB1HK-151Y	C CAPACITOR
	C 861	QETC1AM-227ZN	E CAPACITOR
	C 862	QCVB1CM-103Y	C CAPACITOR
	C 865	QCVB1CM-103Y	C CAPACITOR
	C 866	QCVB1CM-103Y	C CAPACITOR
	C 878	QETC1CM-106ZN	E CAPACITOR
	C 931	QETC1AM-107ZN	E CAPACITOR
	C 932	QCVB1CM-103Y	C CAPACITOR
	C 933	QCVB1CM-103Y	C CAPACITOR
	CN301	VMC0232-S12	CONNECTOR
	CN302	VMC0232-S08	CONNECTOR
	CN304	EMV7112-005	SOCKET
	CN305	VMC0075-R12N	CONNECTOR
	CN306	EMV7112-006	SOCKET
	CN307	VMC0075-006N	CONNECTOR
	CN308	VMC0075-R12N	CONNECTOR
	CN309	EMV7112-007	SOCKET
	CN310	VMC0075-006N	CONNECTOR
	CN312	VMC0075-007N	CONNECTOR
	CN313	VMC0075-006N	CONNECTOR
	CN314	VMC0075-006N	CONNECTOR
	CN315	VMC0232-S08	CONNECTOR
	CN397	VMC0075-005N	CONNECTOR
	D 341	MA165	SI DIODE
	D 809	HZS6B3	Z DIODE
	D 811	MA165	SI DIODE
	D 812	MA165	SI DIODE
	D 813	MA165	SI DIODE
	D 814	MA165	SI DIODE
	D 815	MA165	SI DIODE
	D 816	MA165	SI DIODE
	D 821	MA165	SI DIODE
	D 822	MA165	SI DIODE
	D 823	MA165	SI DIODE
	D 861	MA165	SI DIODE
	D 881	SLV-31VC70F124	LED
	D 891	SLR-34VC3F	LED (M.N.P)
	IC351	XRA15218N	IC
	IC371	BA3823LS	IC
	IC801	MB88507-1293M	IC
	IC802	MN1280(R)	IC
	IC861	AN78L05	IC
	J 301	EMB90YV-401A	SPK.TERMINAL
	L 341	EQF0101-002	FILTER
	L 801	VQP0028-100Z	INDUCTOR
	L 802	VQZ0048-009	INDUCTOR
	L 803	VQP025K-4R7Y	INDUCTOR
	L 804	VQZ0048-007	INDUCTOR
	Q 141	2SD1302(S,T)	TRANSISTOR
	Q 142	2SD1302(S,T)	TRANSISTOR
	Q 143	2SD1302(S,T)	TRANSISTOR
	Q 191	2SD1302(S,T)	TRANSISTOR
	Q 241	2SD1302(S,T)	TRANSISTOR
	Q 242	2SD1302(S,T)	TRANSISTOR
	Q 243	2SD1302(S,T)	TRANSISTOR
	Q 291	2SD1302(S,T)	TRANSISTOR
	Q 341	DTA144WS	TRANSISTOR
	Q 342	DTA144WS	TRANSISTOR
	Q 343	DTA144WS	TRANSISTOR
	Q 344	DTC144ES	TRANSISTOR
	Q 355	2SA564(R,S)	TRANSISTOR
	Q 391	2SA564(R,S)	TRANSISTOR
	Q 801	2SC2001(L,K)	TRANSISTOR
	Q 802	2SC2001(L,K)	TRANSISTOR
	Q 806	DTC114ES	DIGI.TRANSISTOR
	Q 811	DTA144WS	TRANSISTOR
	Q 871	2SA952(L,K)	TRANSISTOR
	Q 872	DTC114ES	DIGI.TRANSISTOR
	Q 873	2SA952(L,K)	TRANSISTOR
	Q 874	DTC114ES	DIGI.TRANSISTOR
	Q 931	2SA952(L,K)	TRANSISTOR
	Q 932	DTC144ES	TRANSISTOR
	Q 933	DTC144ES	TRANSISTOR
	Q 934	DTC144ES	TRANSISTOR
	R 100	QRD161J-103	CARBON RESISTOR
	R 141	QRD161J-562	CARBON RESISTOR
	R 142	QRD161J-392	CARBON RESISTOR
	R 143	QRD161J-683	CARBON RESISTOR
	R 144	QRD161J-103	CARBON RESISTOR
	R 145	QRD161J-473	CARBON RESISTOR
	R 146	QRD161J-822	CARBON RESISTOR
	R 147	QRD161J-104	CARBON RESISTOR
	R 148	QRD161J-472	CARBON RESISTOR
	R 149	QRD161J-472	CARBON RESISTOR
	R 150	QRD161J-472	CARBON RESISTOR
	R 151	QRD161J-103	CARBON RESISTOR
	R 152	QRD161J-683	CARBON RESISTOR
	R 155	QRD161J-102	CARBON RESISTOR
	R 156	QRD161J-103	CARBON RESISTOR
	R 161	QRD161J-153	CARBON RESISTOR
	R 162	QRD161J-332	CARBON RESISTOR

⚠	REF.	PARTS NO.	PARTS NAME
	R 166	QRD161J-272	CARBON RESISTOR
	R 191	QRD161J-562	CARBON RESISTOR
	R 192	QRD161J-472	CARBON RESISTOR
	R 193	QRD161J-822	CARBON RESISTOR
	R 200	QRD161J-103	CARBON RESISTOR
	R 241	QRD161J-562	CARBON RESISTOR
	R 242	QRD161J-392	CARBON RESISTOR
	R 243	QRD161J-683	CARBON RESISTOR
	R 244	QRD161J-103	CARBON RESISTOR
	R 245	QRD161J-473	CARBON RESISTOR
	R 246	QRD161J-822	CARBON RESISTOR
	R 247	QRD161J-104	CARBON RESISTOR
	R 248	QRD161J-472	CARBON RESISTOR
	R 249	QRD161J-472	CARBON RESISTOR
	R 250	QRD161J-472	CARBON RESISTOR
	R 251	QRD161J-103	CARBON RESISTOR
	R 252	QRD161J-683	CARBON RESISTOR
	R 255	QRD161J-102	CARBON RESISTOR
	R 256	QRD161J-103	CARBON RESISTOR
	R 261	QRD161J-153	CARBON RESISTOR
	R 262	QRD161J-332	CARBON RESISTOR
	R 266	QRD161J-272	CARBON RESISTOR
	R 291	QRD161J-562	CARBON RESISTOR
	R 292	QRD161J-472	CARBON RESISTOR
	R 293	QRD161J-822	CARBON RESISTOR
	R 340	QRD161J-561	CARBON RESISTOR
	R 341	QRD161J-102	CARBON RESISTOR
	R 342	QRD161J-223	CARBON RESISTOR
	R 343	QRD161J-102	CARBON RESISTOR
	R 344	QRD161J-223	CARBON RESISTOR
	R 345	QRD161J-102	CARBON RESISTOR
	R 346	QRD161J-472	CARBON RESISTOR
	R 347	QRD161J-472	CARBON RESISTOR
	R 349	QRD161J-223	CARBON RESISTOR
	R 351	QRD161J-101	CARBON RESISTOR
	R 352	QRD161J-103	CARBON RESISTOR
	R 353	QRD161J-103	CARBON RESISTOR
	R 355	QRD161J-471	CARBON RESISTOR
	R 356	QRD161J-561	CARBON RESISTOR
	R 357	QRD161J-103	CARBON RESISTOR
	R 371	QRD161J-221	CARBON RESISTOR
	R 391	QRD161J-471	CARBON RESISTOR
	R 392	QRD161J-561	CARBON RESISTOR
	R 393	QRD161J-683	CARBON RESISTOR
	R 394	QRD161J-103	CARBON RESISTOR
	R 801	QRD161J-102	CARBON RESISTOR
	R 802	QRD161J-102	CARBON RESISTOR
	R 803	QRD161J-102	CARBON RESISTOR
	R 804	QRD161J-102	CARBON RESISTOR
	R 806	QRD161J-102	CARBON RESISTOR
	R 807	QRD161J-102	CARBON RESISTOR
	R 808	QRD161J-102	CARBON RESISTOR
	R 809	QRD161J-102	CARBON RESISTOR
	R 810	QRD161J-102	CARBON RESISTOR
	R 811	QRD161J-102	CARBON RESISTOR
	R 812	QRD161J-102	CARBON RESISTOR
	R 813	QRD161J-102	CARBON RESISTOR
	R 814	QRD161J-102	CARBON RESISTOR
	R 815	QRD161J-102	CARBON RESISTOR
	R 817	QRD161J-222	CARBON RESISTOR
	R 818	QRD161J-103	CARBON RESISTOR
	R 819	QRD161J-102	CARBON RESISTOR
	R 821	QRD161J-102	CARBON RESISTOR
	R 822	QRD161J-103	CARBON RESISTOR
	R 828	QRD161J-102	CARBON RESISTOR
	R 829	QRD161J-102	CARBON RESISTOR
	R 830	QRD161J-102	CARBON RESISTOR
	R 836	QRD161J-472	CARBON RESISTOR
	R 846	QRD161J-222	CARBON RESISTOR
	R 847	QRD161J-272	CARBON RESISTOR

⚠	REF.	PARTS NO.	PARTS NAME
	R 848	QRD161J-272	CARBON RESISTOR
	R 849	QRD161J-392	CARBON RESISTOR
	R 855	QRD161J-223	CARBON RESISTOR
	R 856	QRD161J-102	CARBON RESISTOR
	R 857	QRD161J-103	CARBON RESISTOR
	R 859	QRD161J-473	CARBON RESISTOR
	R 860	QRD161J-473	CARBON RESISTOR
	R 865	QRD161J-473	CARBON RESISTOR
	R 866	QRD161J-102	CARBON RESISTOR
	R 869	QRD161J-102	CARBON RESISTOR
	R 871	QRD161J-473	CARBON RESISTOR
	R 872	QRD161J-472	CARBON RESISTOR
	R 873	QRD161J-222	CARBON RESISTOR
	R 874	QRD161J-562	CARBON RESISTOR
	R 878	QRD161J-333	CARBON RESISTOR
	R 880	QRD161J-102	CARBON RESISTOR
	R 881	QRD161J-103	CARBON RESISTOR
	R 882	QRD161J-103	CARBON RESISTOR
	R 884	QRD161J-561	CARBON RESISTOR
	R 891	QRD161J-561	CARBON RESISTOR
	R 931	QRD161J-102	CARBON RESISTOR
	R 933	QRD161J-103	CARBON RESISTOR
	R 937	QRD161J-333	CARBON RESISTOR
	RR348	QRD161J-472	CARBON RESISTOR
	S 881	QSP2256-005	PUSH SWITCH
	S 882	QSP2256-005	PUSH SWITCH
	S 883	QSP2256-005	PUSH SWITCH
	S 884	QSP2256-005	PUSH SWITCH
	S 891	QSQ4H11-V02Z	TACT SW
	S 892	QSQ4H11-V02Z	TACT SW
	S 893	QSQ4H11-V02Z	TACT SW
	S 894	QSQ4H11-V02Z	TACT SW
	VR372	QVXB1JG-V15	V RESISTOR
	VR373	QVXB1JG-V15	V RESISTOR
	VR374	QVXB1JG-V15	V RESISTOR
	VR391	VCV1001-124	V RESISTOR(A)
	X 801	CSA2.00MG040-TF	CERA LOCK

8 Packing and Parts List

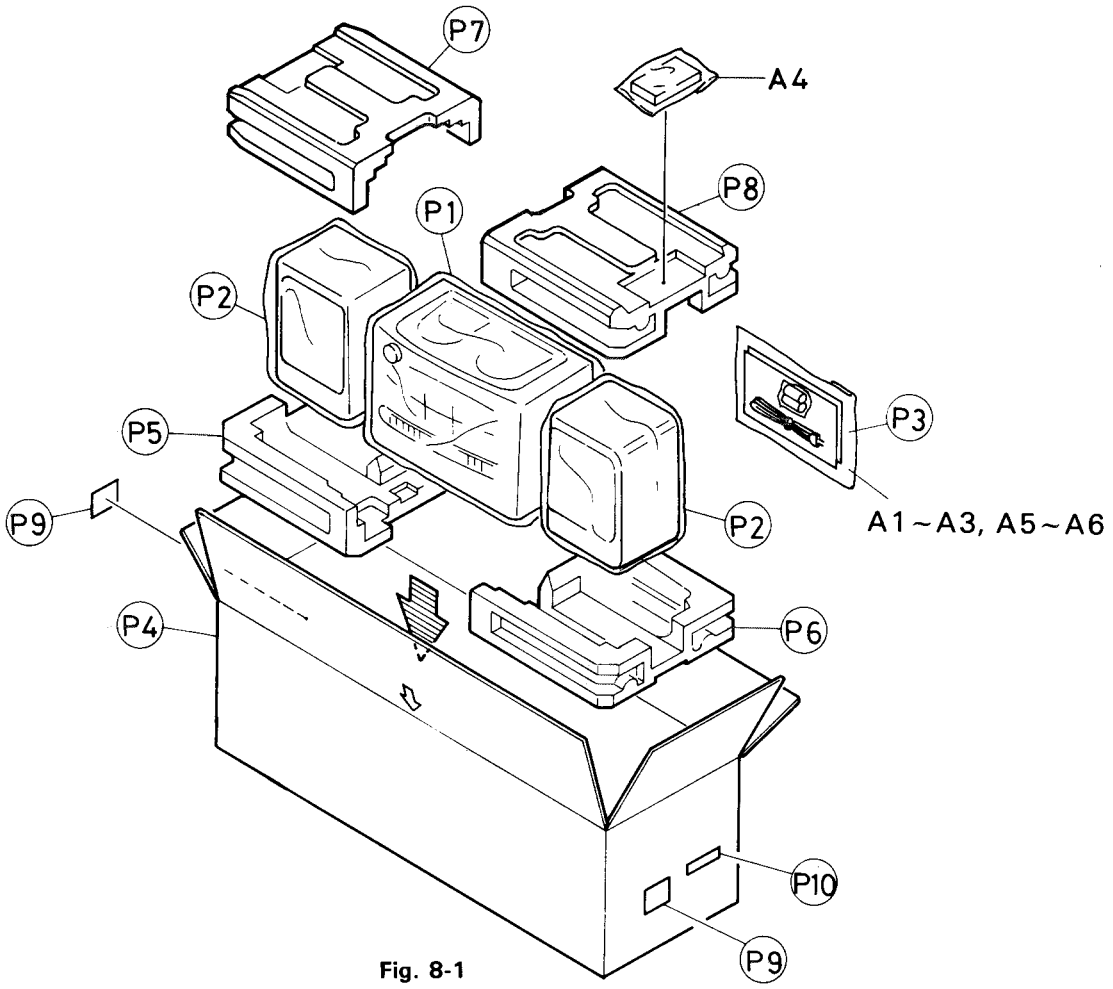


Fig. 8-1

■ Packing Parts List

BLOCK No. M8MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	A1	VNN7058-211	INSTRUCTIONS		1
	A1	VNN7058-441	INSTRUCTIONS	E. VERSION	1
⚠	A2	QMP3950-183	POWER CORD	E. VERSION	1
⚠	A2	QMP5510-183BS	POWER CORD	B. VERSION	1
	A3	E43486-340B	SAFETY INST SHEET	B. VERSION	1
	A4	VGR0002-001	REMOTE CONTROL		1
	A5	BT20060	WARRANTY CARD	B. VERSION	1
	A5	BT20066A	WARRANTY CARD	B. VERSION	1
	A6	UM4NJ-2P	BATTERY	NO. SERVICE	2
	P1	VPE3020-065	POLY BAG	FOR SPEAKER	1
	P2	VPE3020-064	POLY BAG	FOR RESILVER	2
	P3	VPE3005-007	POLY BAG	FOR INSTRUCTIONS	1
	P4	VPE7058-001	CARTON		1
	P5	VPH1570-003	CUSHION	BOTTOM LEFT	1
	P6	VPH1570-004	CUSHION	BOTTOM RIGHT	1
	P7	VPH1571-001	CUSHION	TOP LEFT	1
	P8	VPH1571-003	CUSHION	TOP RIGHT	1
	P9	VND3044-004	SERIAL LABEL	B VERSION	2
	P9	VND3044-003	SERIAL LABEL	E. VERSION	1
	P10	VND3025-142	FNA CORD LABEL		1

PC-XT5 B/E

JVC

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PERSONAL AUDIO PRODUCTS DIVISION 10-1, 1-chome, Ohwatari-machi, Maebashi-city, Japan

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